

Outside the Studio Walls:

MicroTalk Exploration of Non-audio Ideas & Experiences

1 hour
10 speakers



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MicroTalk Exploration of Non-audio Ideas & Experiences

1 hour
10 speakers



Microtalk?



**20 slides x 16 seconds
= 5 minutes 20 seconds**

dren mcdonald

@drenmc



pixel image by paul conway
@doomcube



Kristen Quebe
@gameaudiogirl



Ariel Gross
@arielgross



Emily Ridgway @emilyindustries



Daniel Olsén
@olsefaeken



Karen Collins @GameSoundDoc



Jaclyn Shumate @ShuJaxAudio



Vincent Diamante
@sklathill



David Earl

@sflogicninja



Andy Martin
@soundeziner



Reaper script

m10 or D100

RX5

Ue4

SoundToys 5!

p4v

giphy

96kHz recording?

albion one?

#gameaudio

sidechaining

Win10?

eurorack?

Wwise midi?

sound event

kHz

Finalé?

Sibelius?

pencil?

10.10.5 compatibility





2 Dev 437541346

292,465 x175

TARGET

500,000

0 0

1:31







dren mcdonald

@drenmc



pixel image by paul conway
@doomcube

Ariel Gross

Audio Director, Quetzalcoatl Games

“Why I Give A Crap About Leadership”

Web: arielgross.com

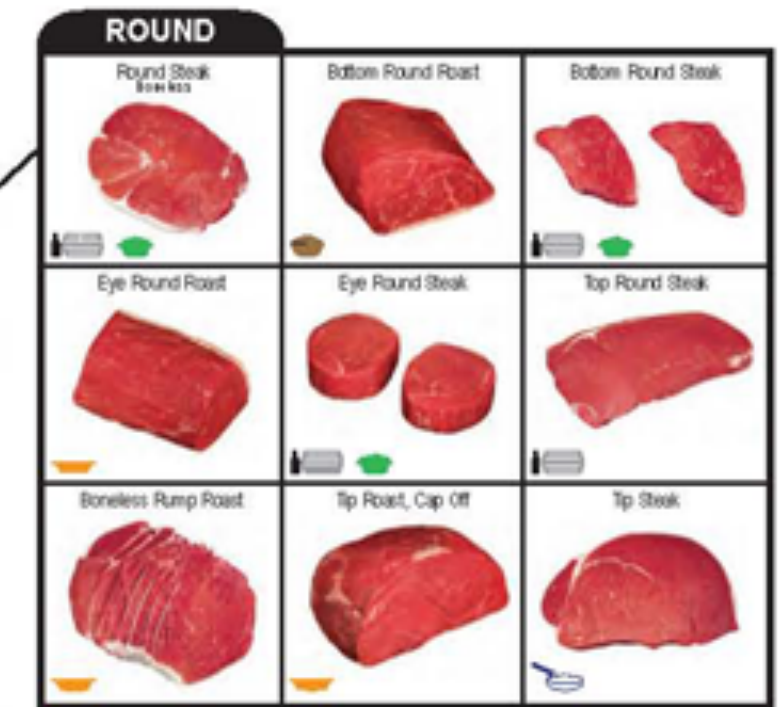
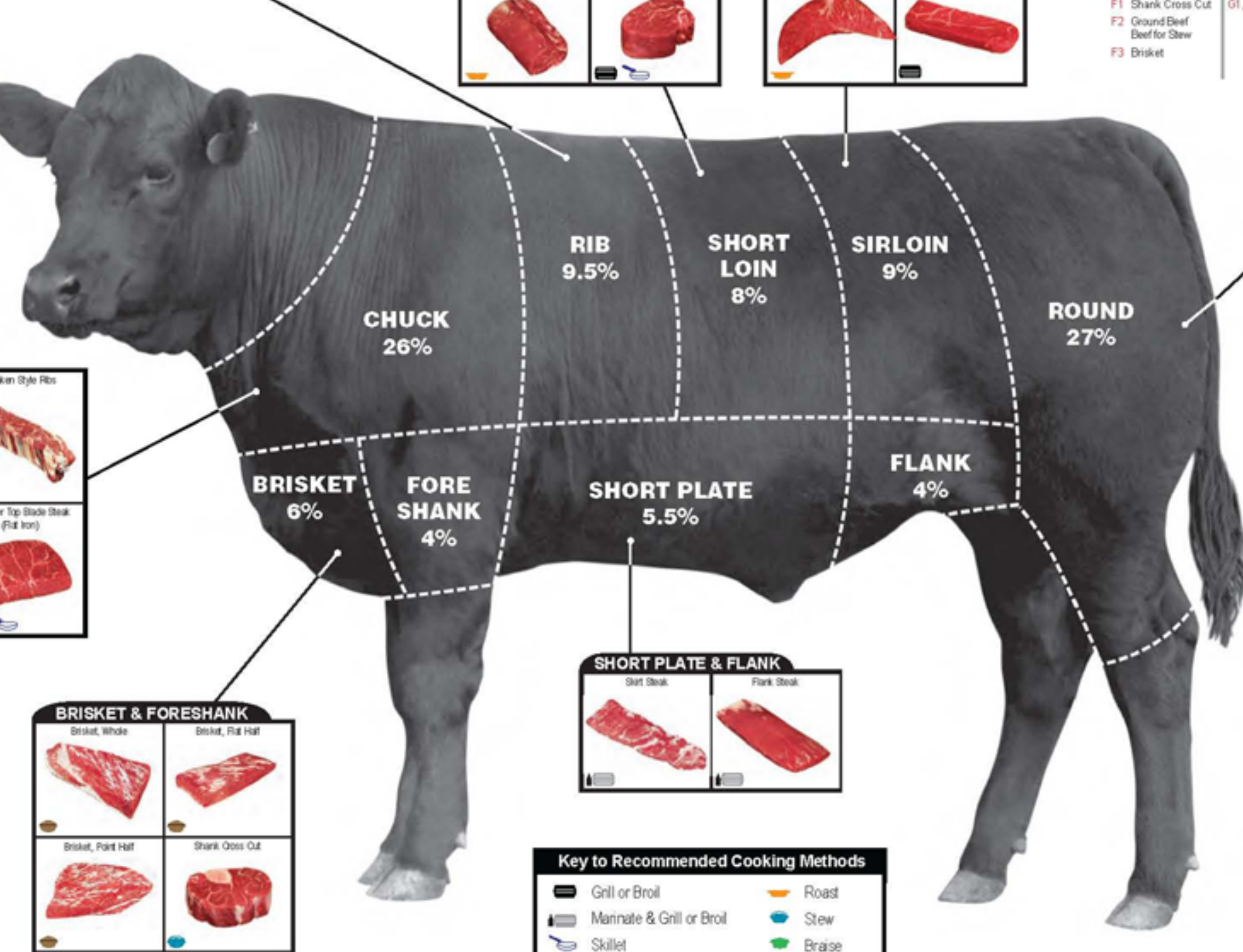
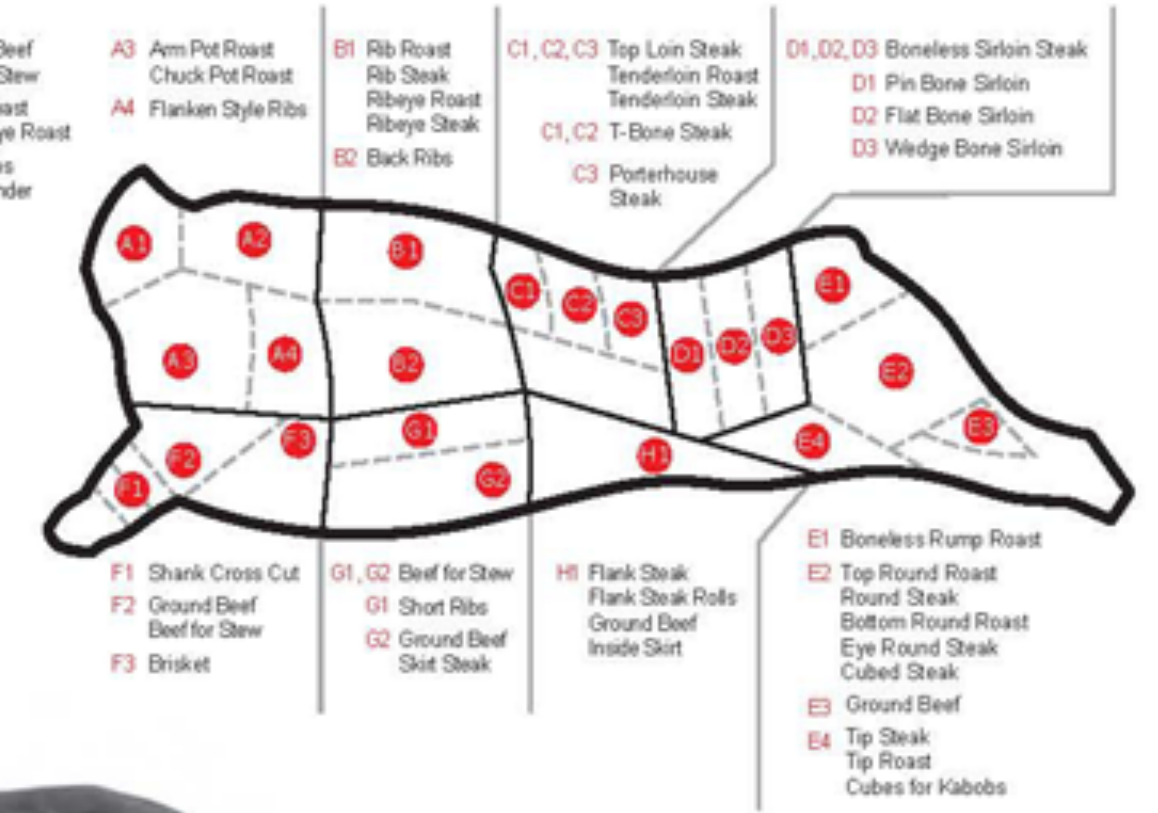
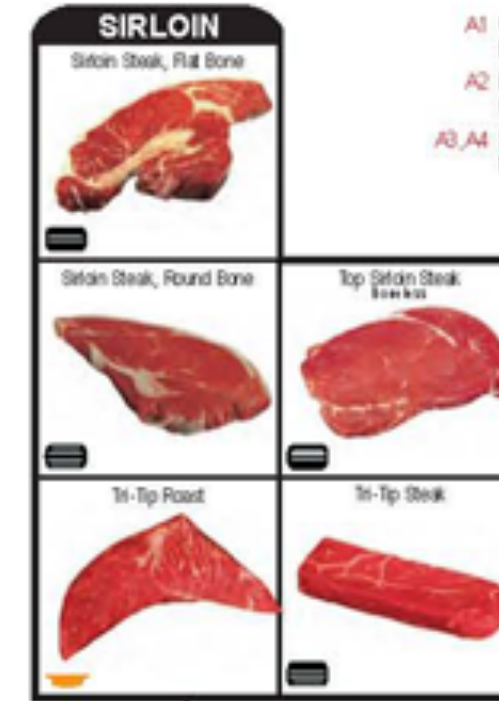
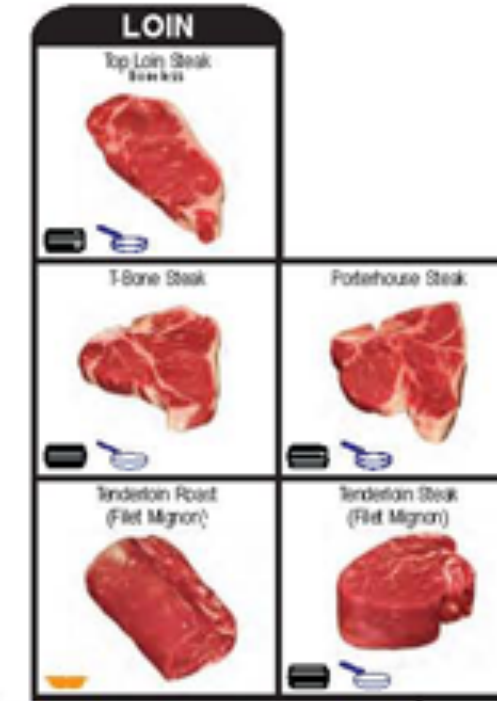
Twitter: @arielgross

Drop shadow by ~~Microsoft~~ PowerPoint Keynote





ANGUS BEEF CHART



Key to Recommended Cooking Methods

Grill or Broil	Roast
Marinate & Grill or Broil	Stew
Skillet	Braise
Stir-Fry	Pot Roast

A 1200 pound, Yield Grade 1 steer yields 518 pounds of retail cuts from a 750 pound carcass.

A 1200 pound, Yield Grade 2 steer yields 502 pounds of retail cuts from a 750 pound carcass.

A 1200 pound, Yield Grade 3 steer yields 435 pounds of retail cuts from a 750 pound carcass.

Of the retail cuts, on a carcass weight basis:

- 31% are steaks
- 31% are roasts
- 38% is ground beef and stew meat



American Angus Association
3201 Frederick Ave., St. Joseph, MO 64506
(816) 383-5100 • www.angus.org

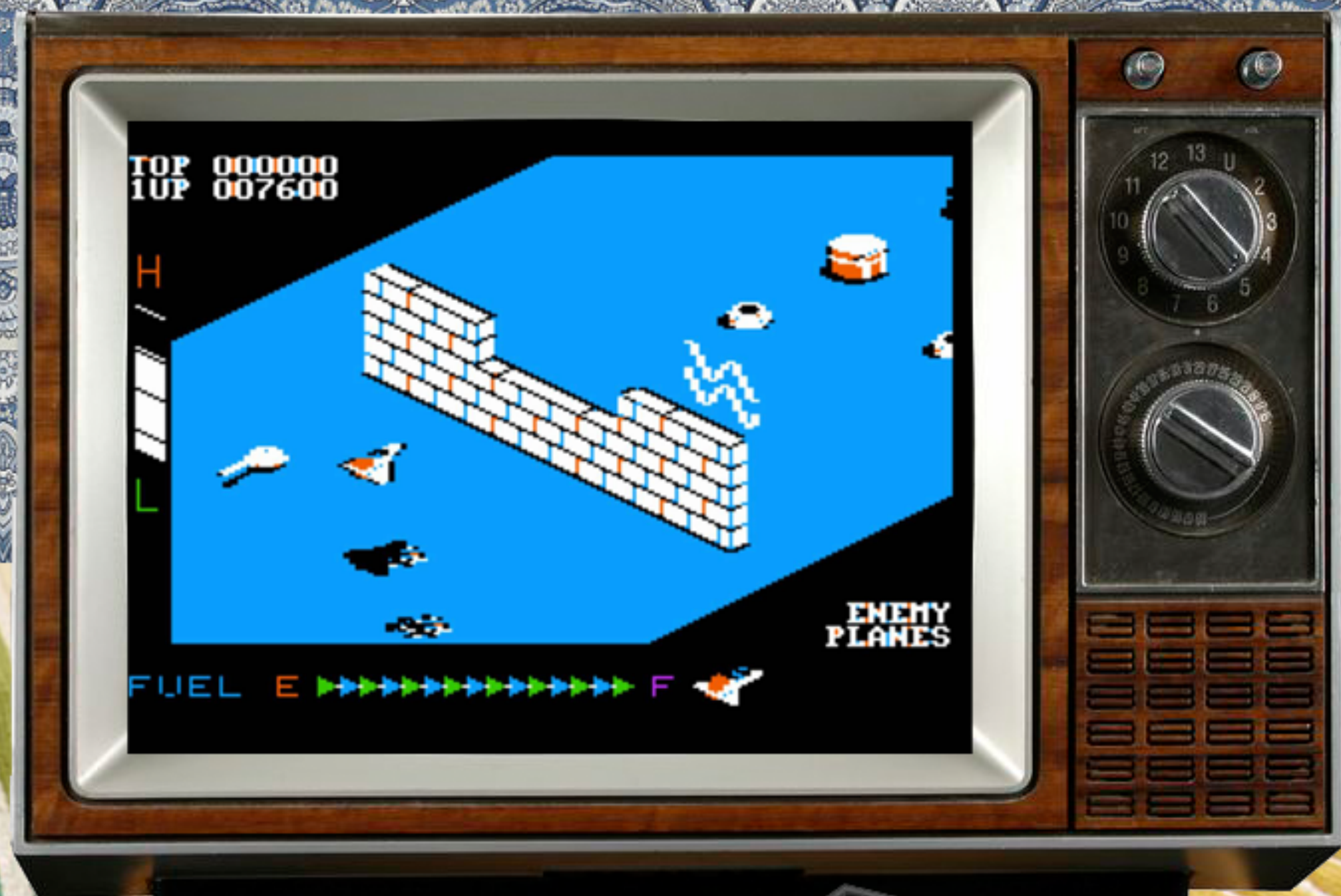






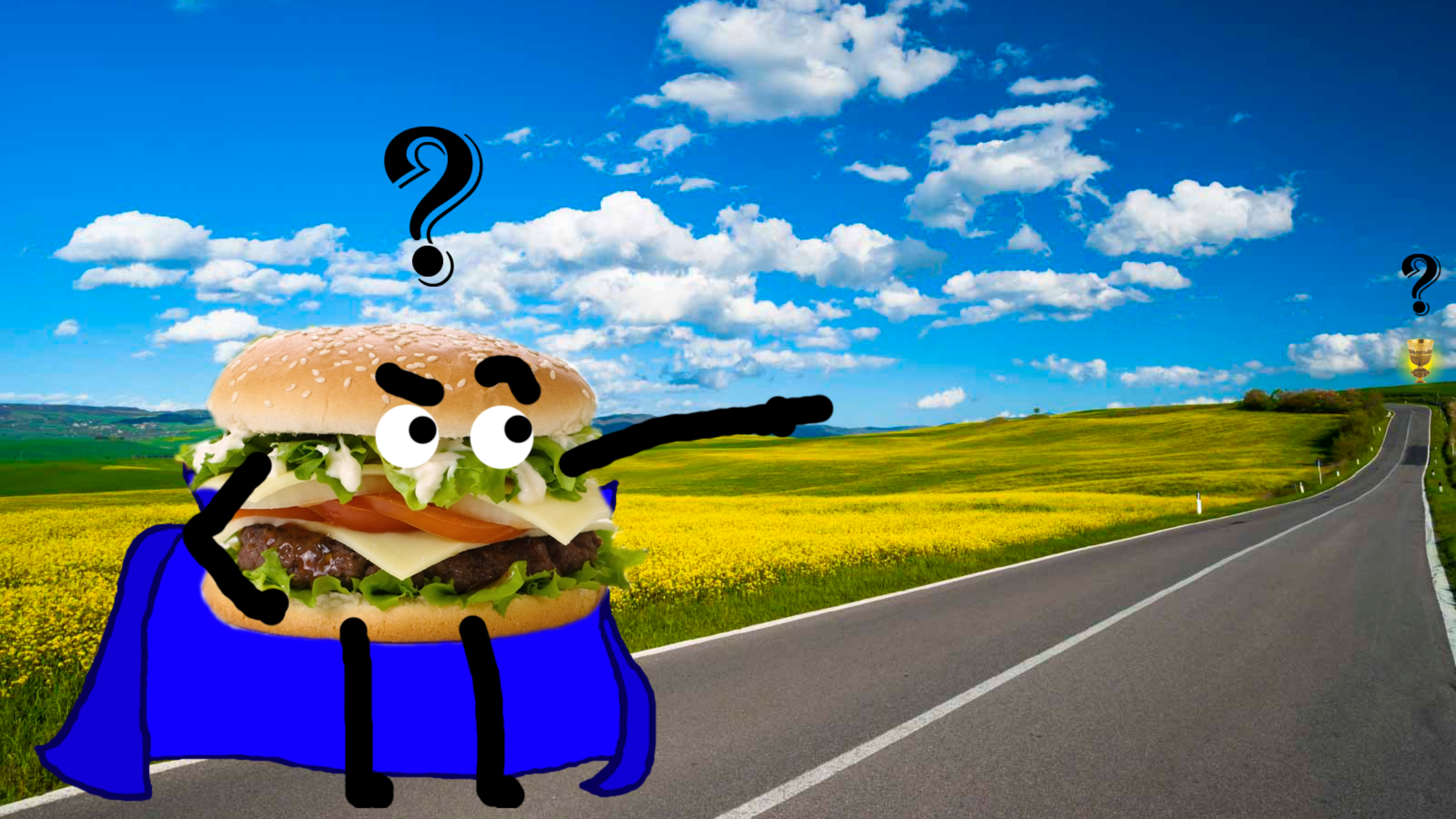


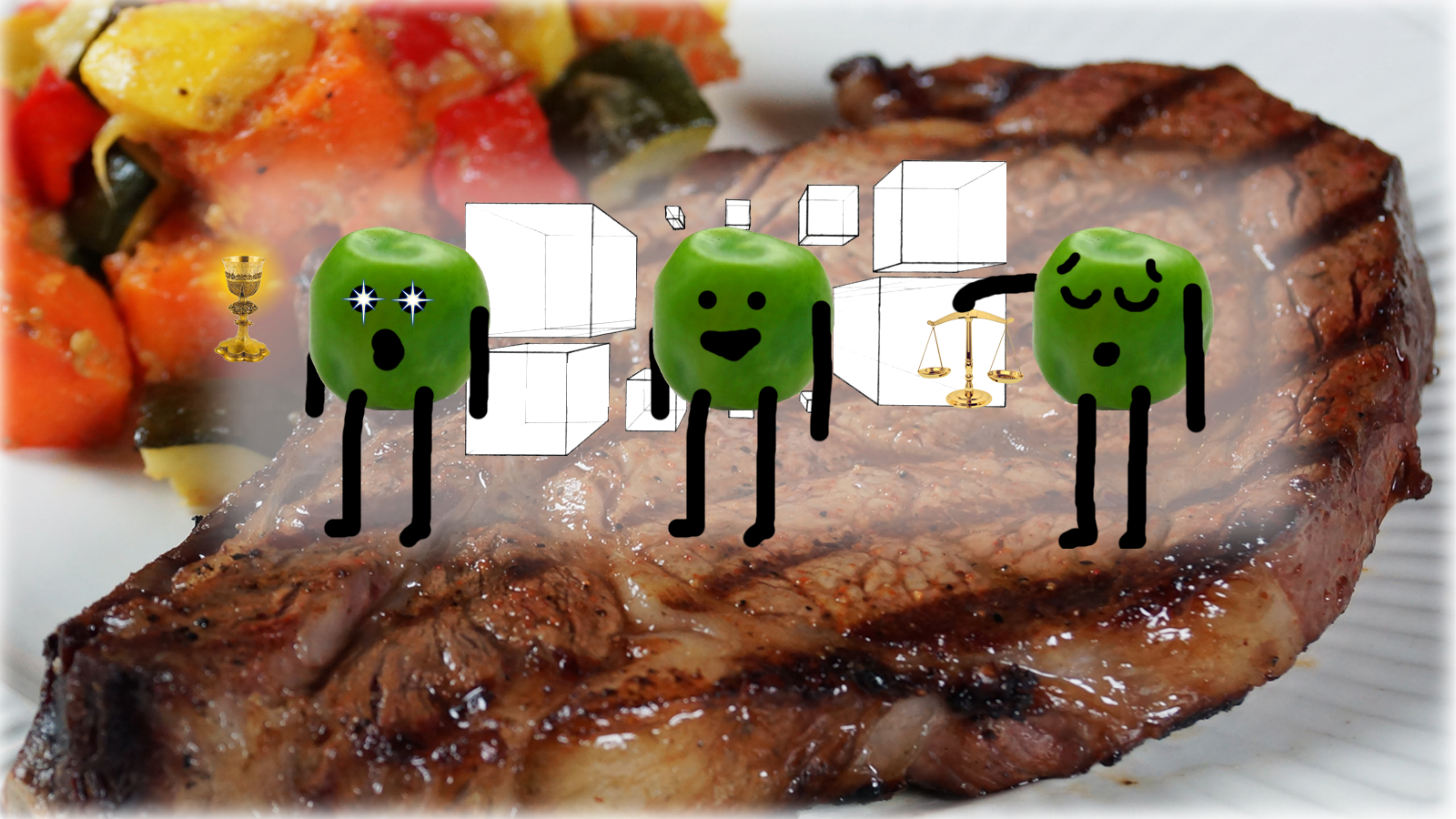




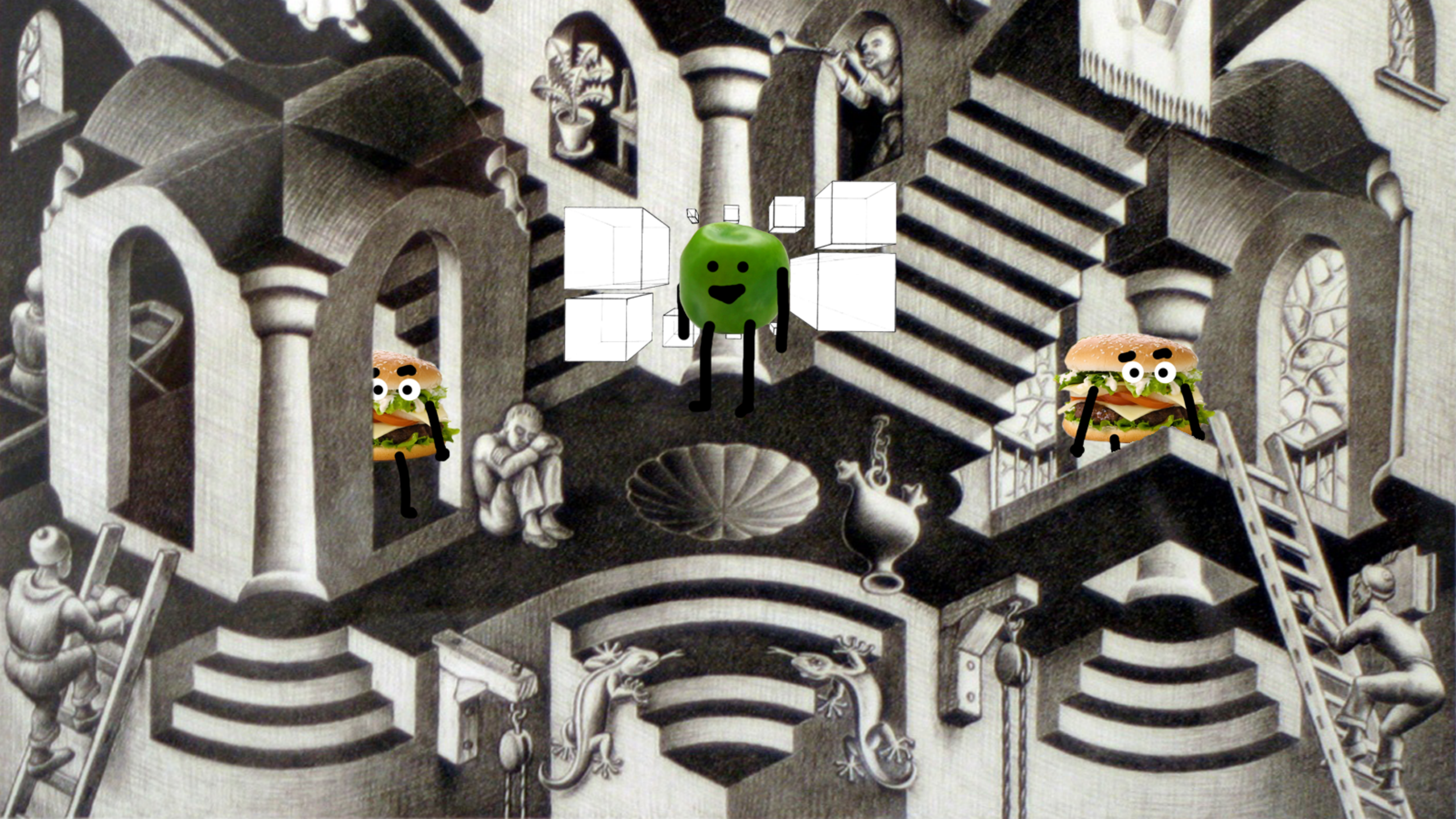
























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Audio Director, Quetzalcoatl Games

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What video editing taught me about sound

Karen Collins, director/editor

“Beep: A History of Game Sound”

@gamesounddoc

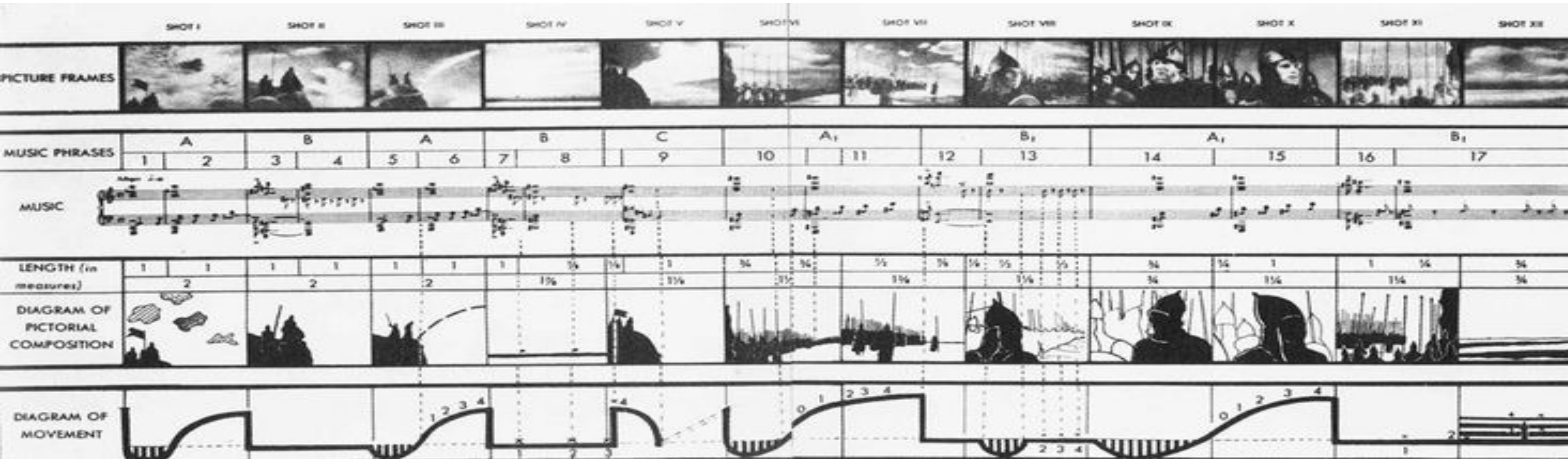
beepmovie.com



Sergei Eisenstein



Eisenstein's theories



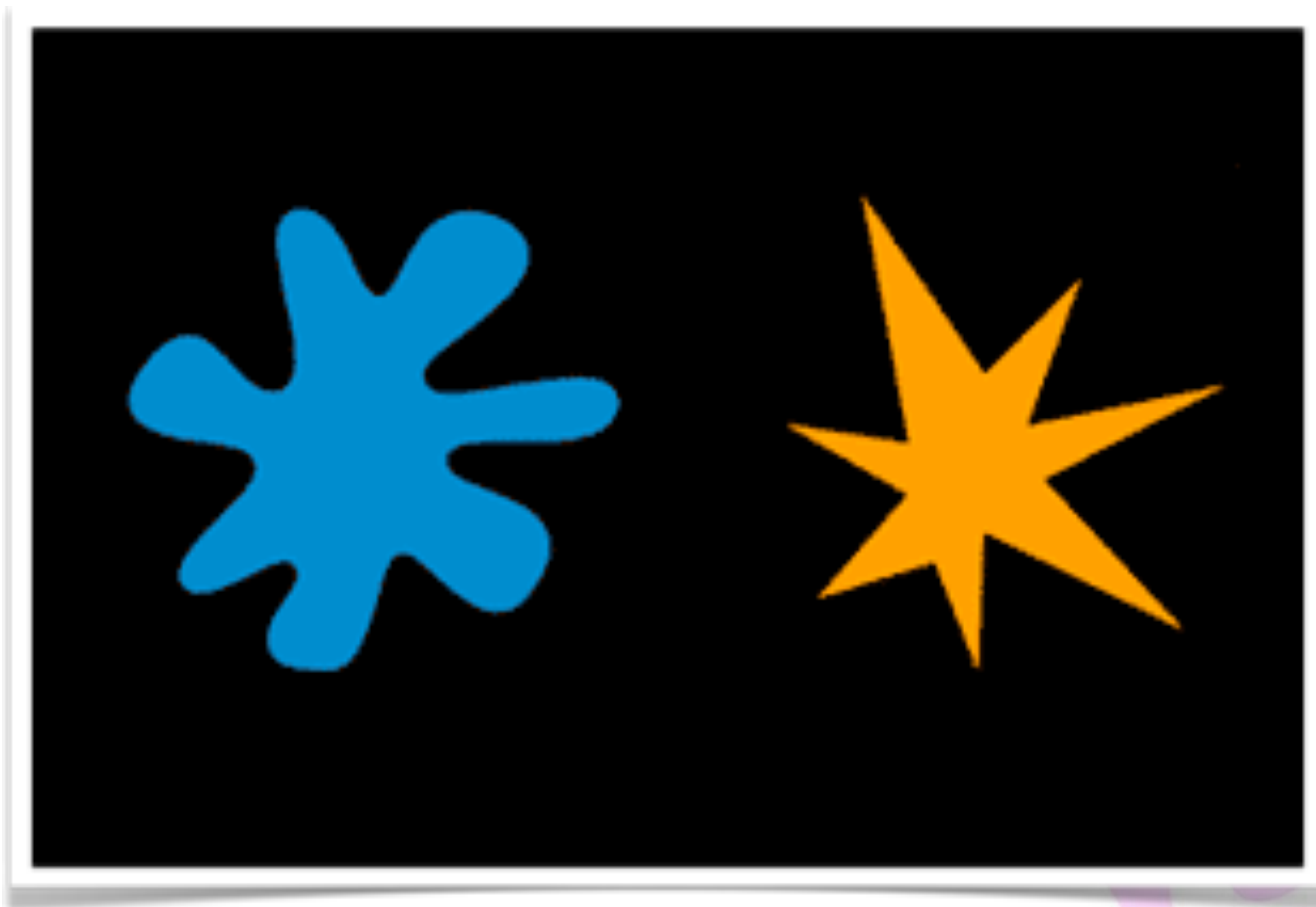
Kuleshov Effect





The bouba/kiki effect

(Köhler 1929)







Does changing the music influence the experience of the game?

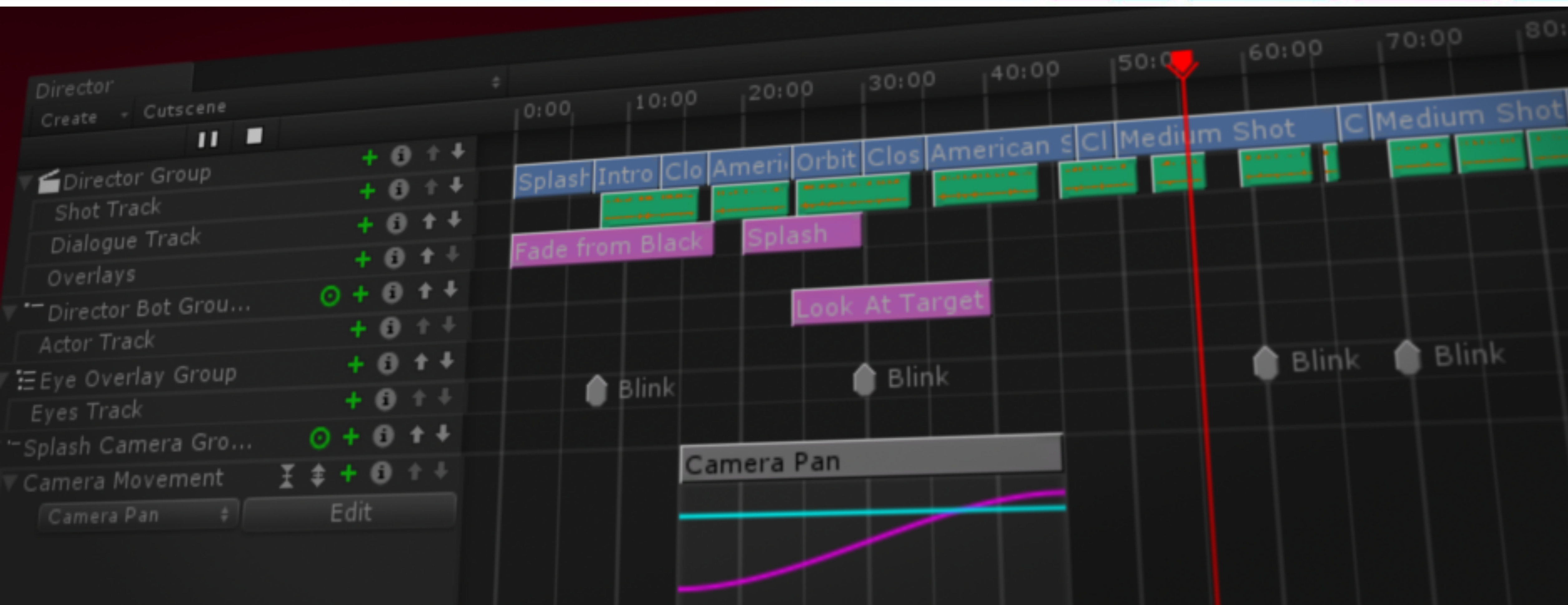
The Pink Sync





“conceptual resonance” (Murch)





1. Juxtaposition

(2 sounds
differently
juxtaposed to
change
meaning)

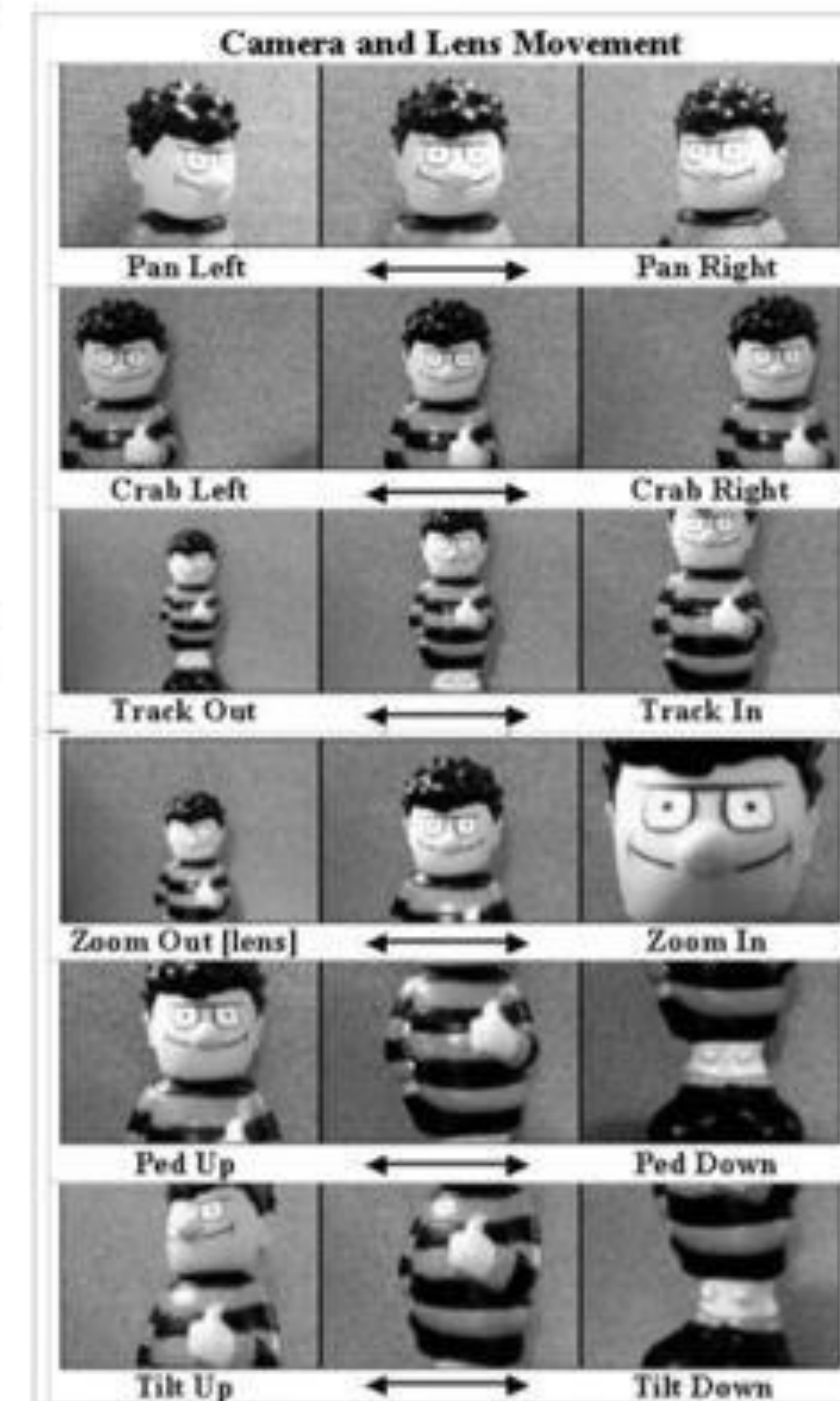
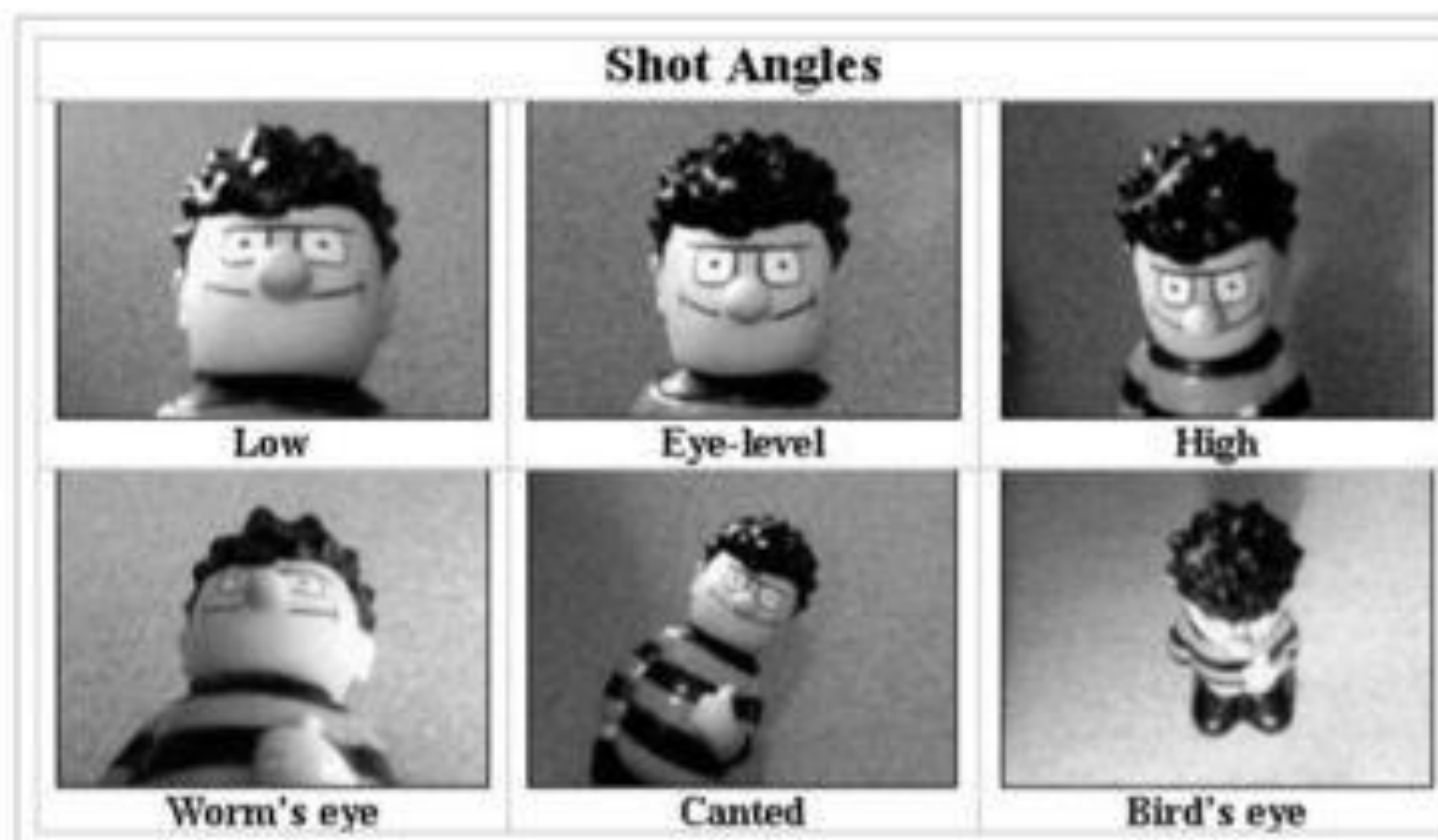
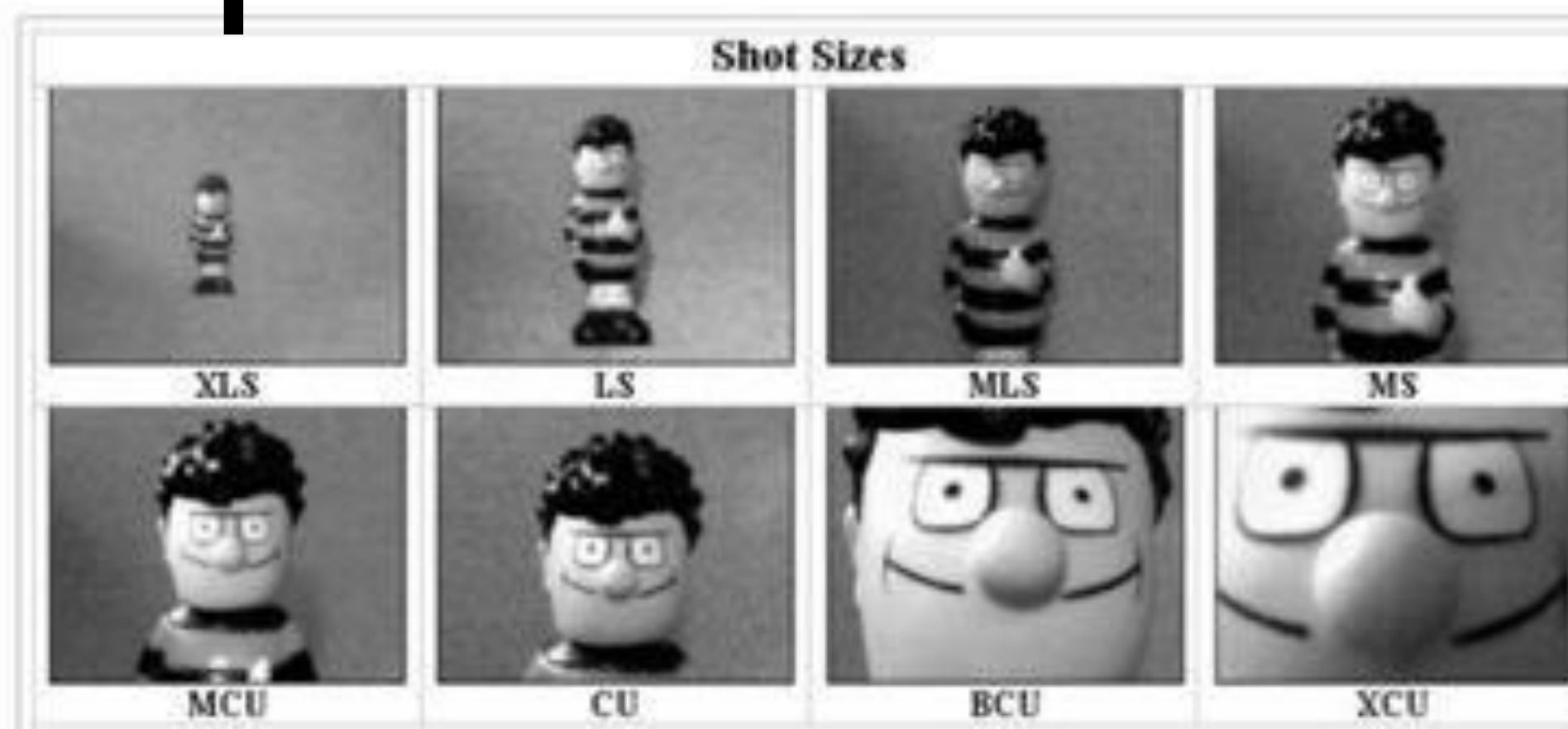


Juxtaposition: An Auditory Kuleshov Effect



2. Frame “Shape”

Camera Shots, Angles and Movement



3. Pacing

- Regular Breath: 12-20 breaths per minute
- Walking speed: 60-100 steps per minute
- Heart rate: 60-100 beats per minute



4. Foreground background



GDC





Summary

- Use intersensory connections
- Don't just put sound to image, Work with graphics/visuals
- Film editing metaphor is useful to explain audio ideas

What video editing taught me about sound

Karen Collins, director/editor

“Beep: A History of Game Sound”

@gamesounddoc

beepmovie.com



Kicking @ss and Writing Themes

Martial Arts and the Art of Music







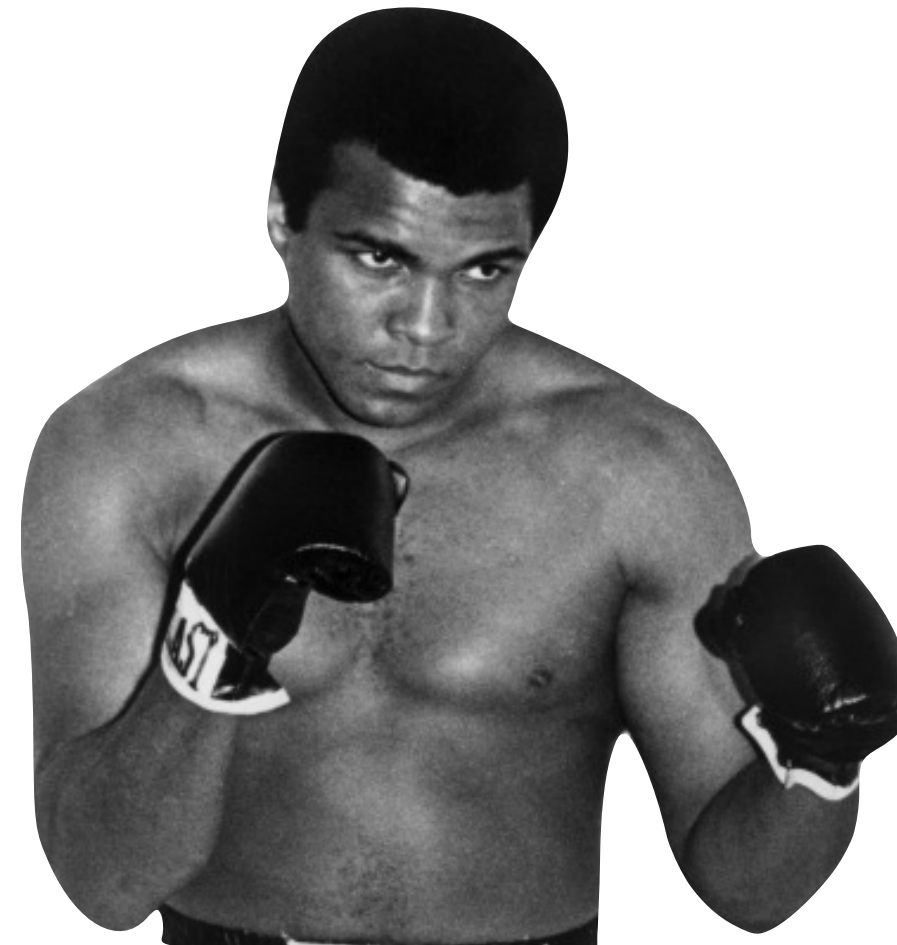




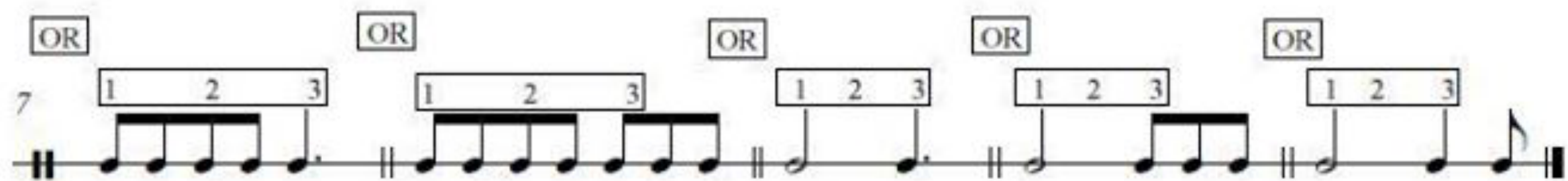
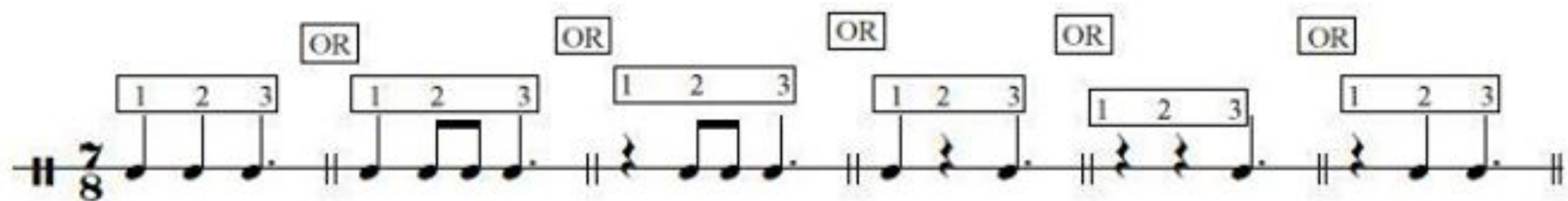
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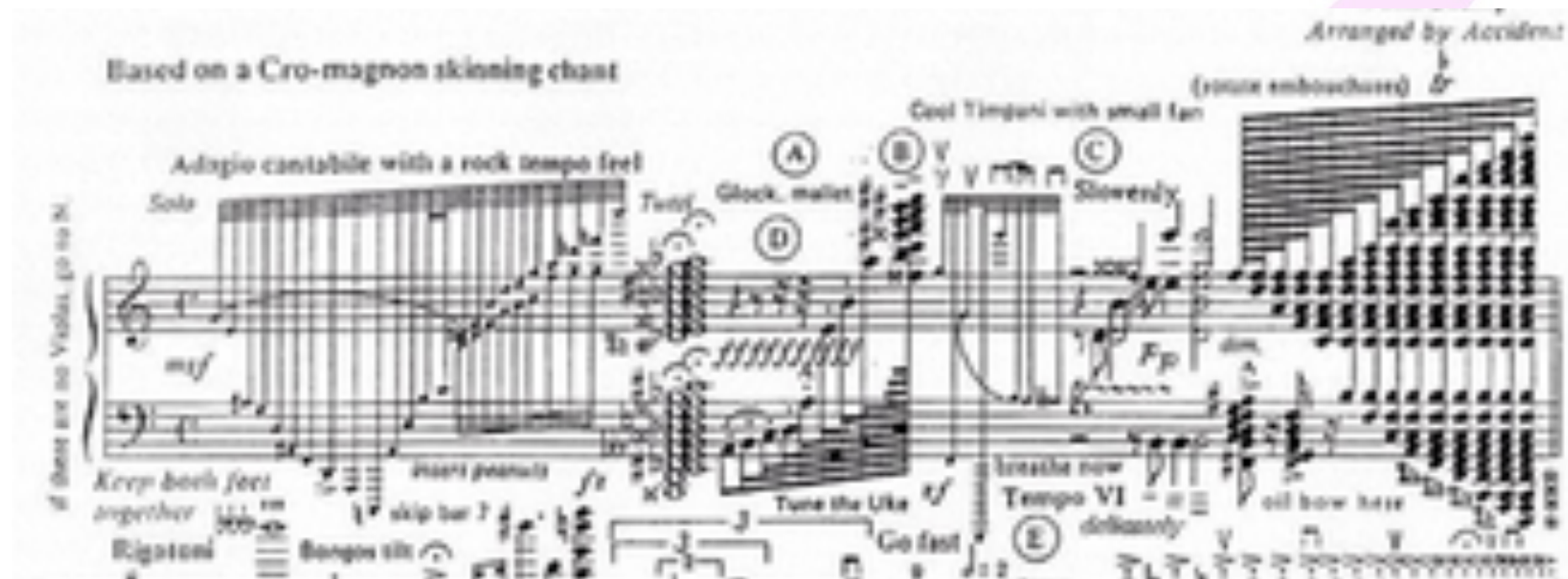
GAMELAN



BEATS	1		2		3		4		5		6		7		8	
PART 1	B		G	B	G		B		B		G		B	G	B	G
PART 2	E	F		E		F	E	F	E		F	E		F	E	
PART 3	E		F		G		B		G		F		E		C	
PART 4	E			E					G				G			
PART 5	C								E							

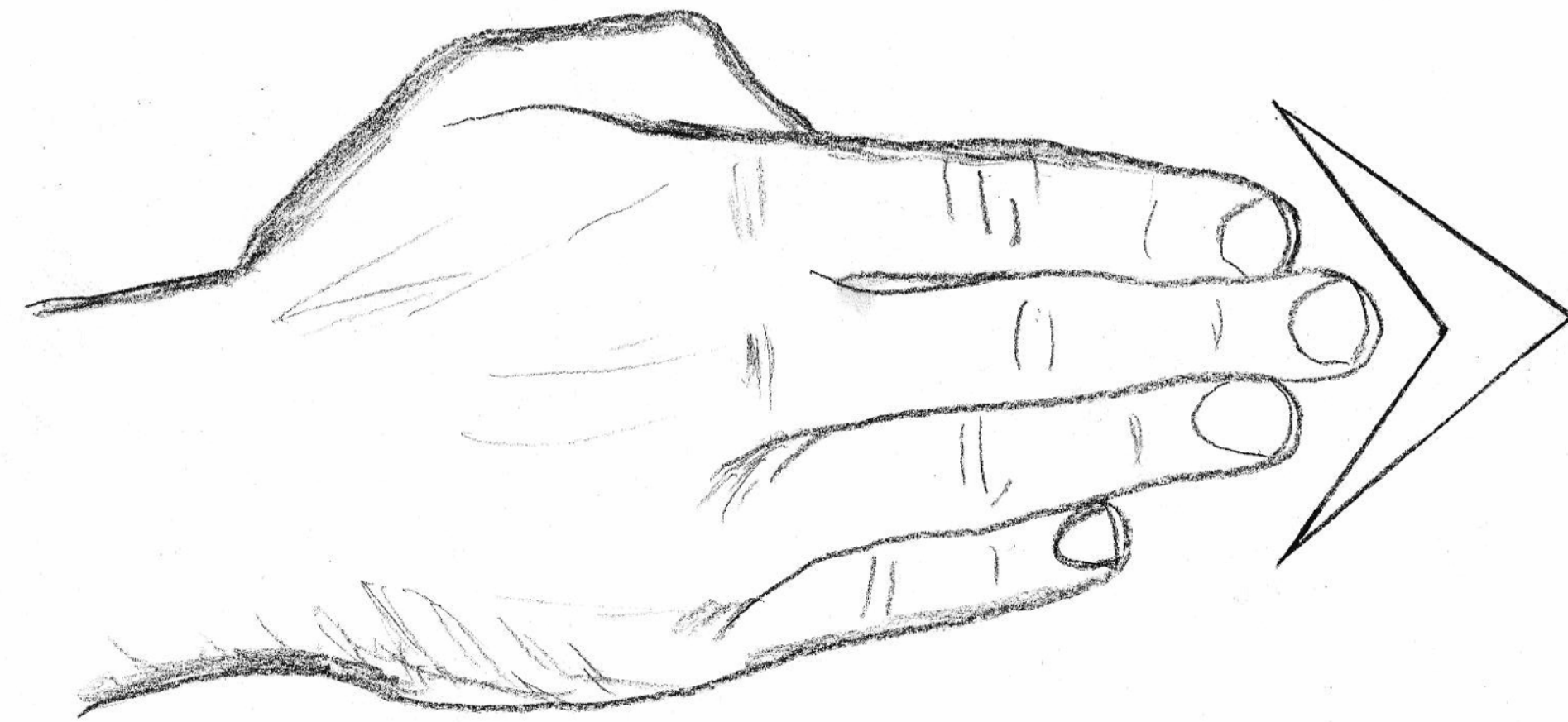
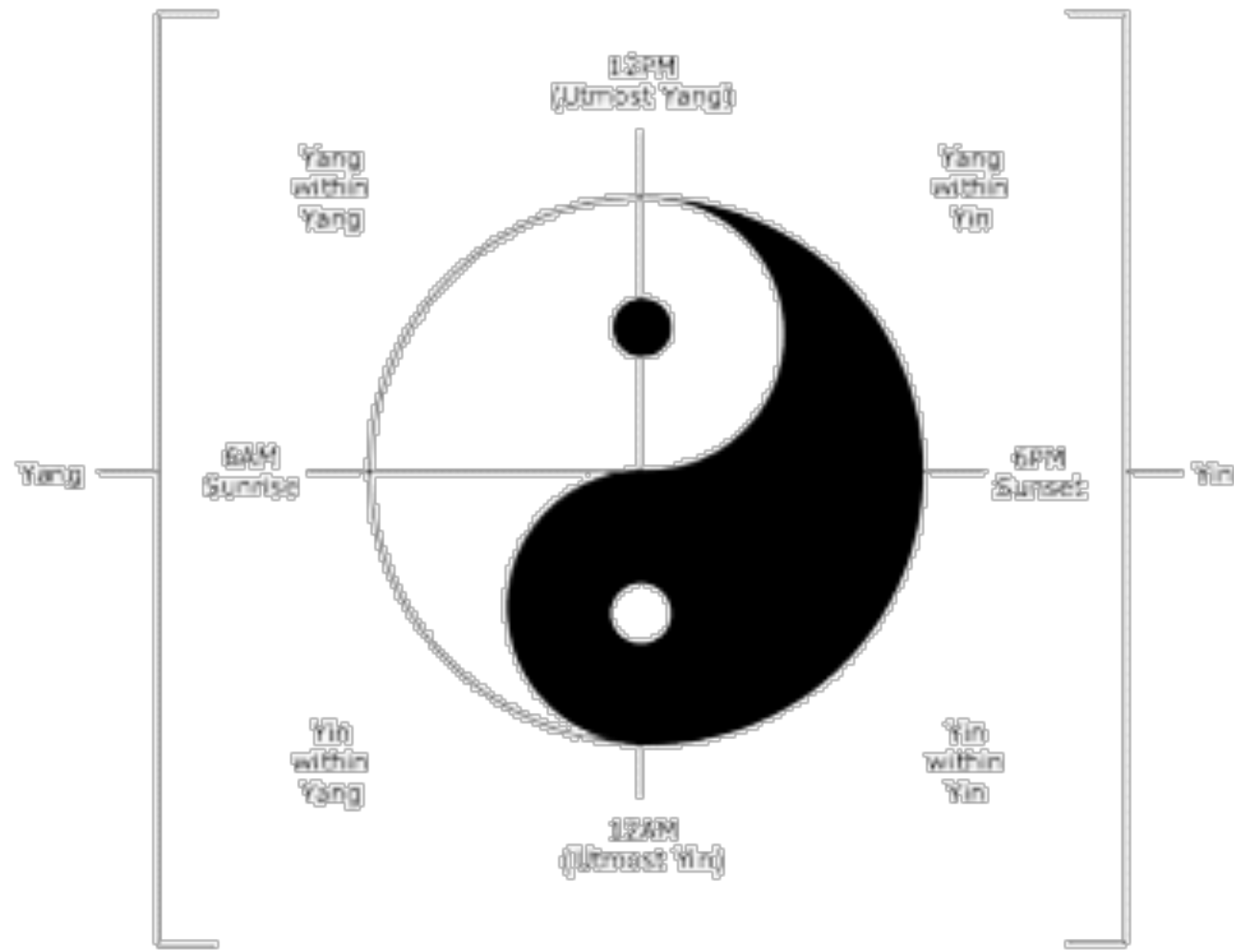
BEATS	9		10		11		12		13		14		15		16	
PART 1	B		G	B	G		B		B		G		B	G	B	G:
PART 2	E	F		E		F	E	F	E		F	E		F	E	:
PART 3	E		G		F		E		G		F		E		G	:
PART 4	E				G				E				G			:
PART 5	C								C							:

REPEAT













- Now What?!







You call that an
Esraj melody?!











Kicking Ass and writing themes

- David Earl
- @sflogicninja
- www.davidearlproductions.com



Emily Ridgway

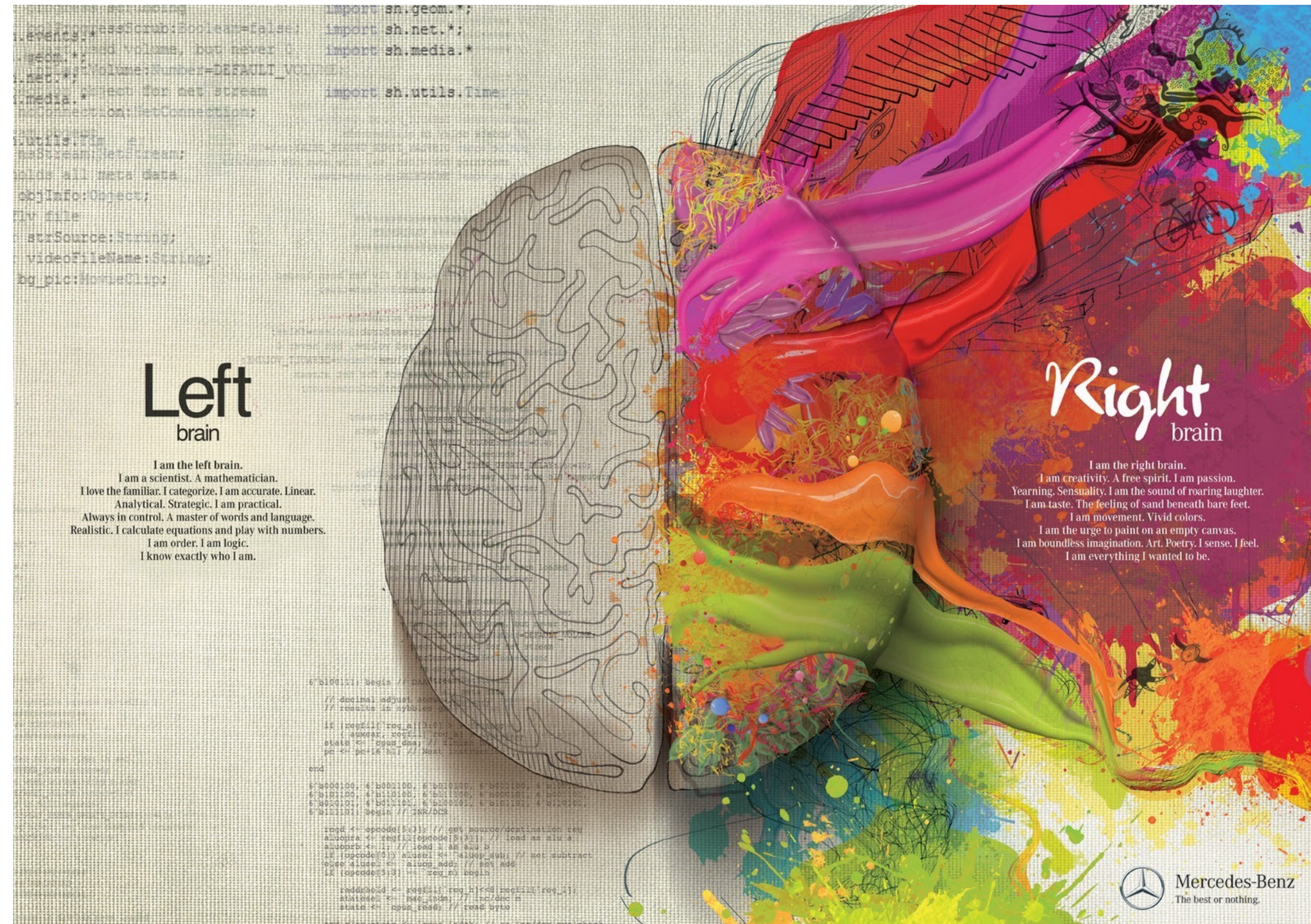
Audio, Valve Software

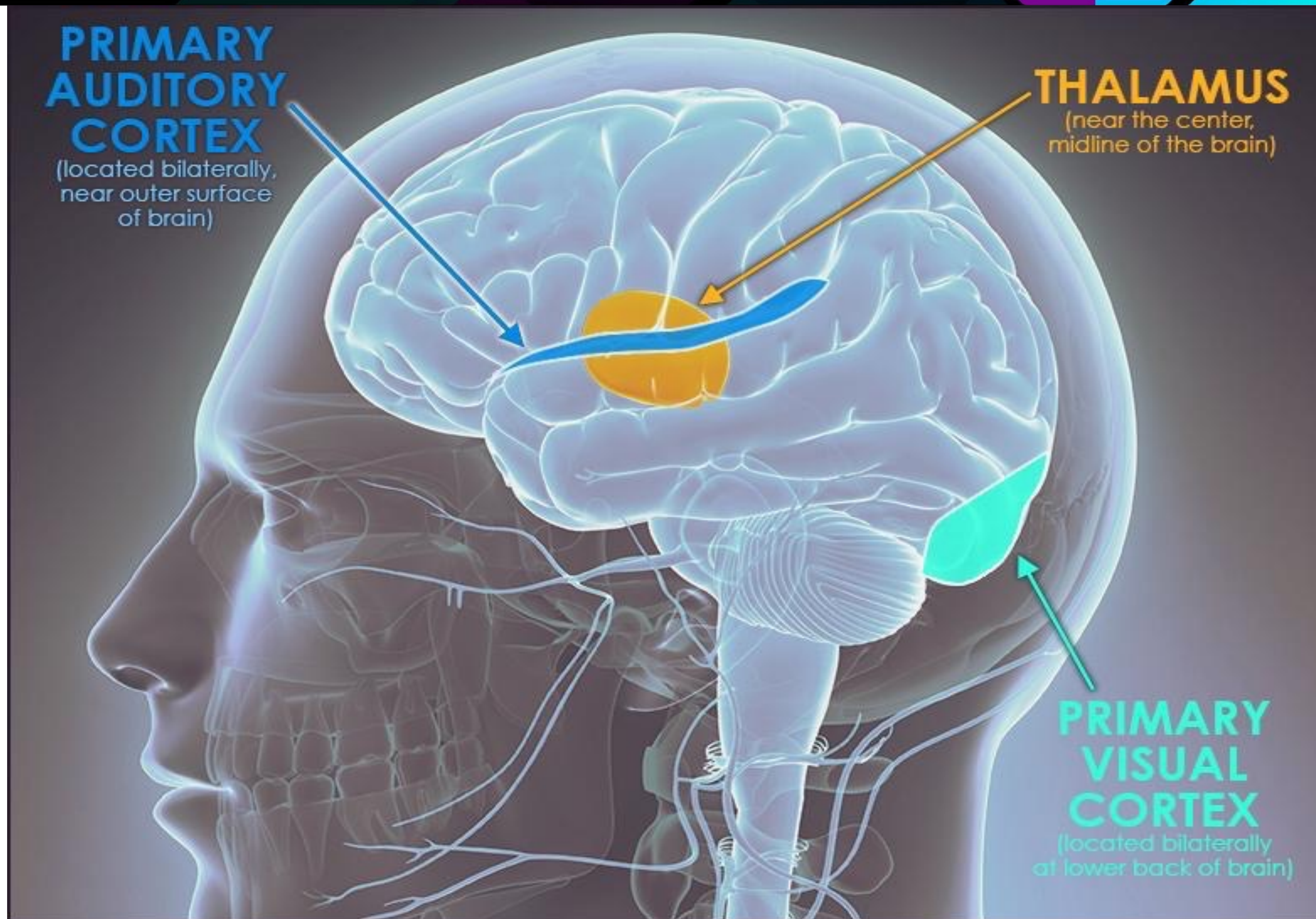
My mum, psychoacoustics and gameplay

Web: emilyindustries.com

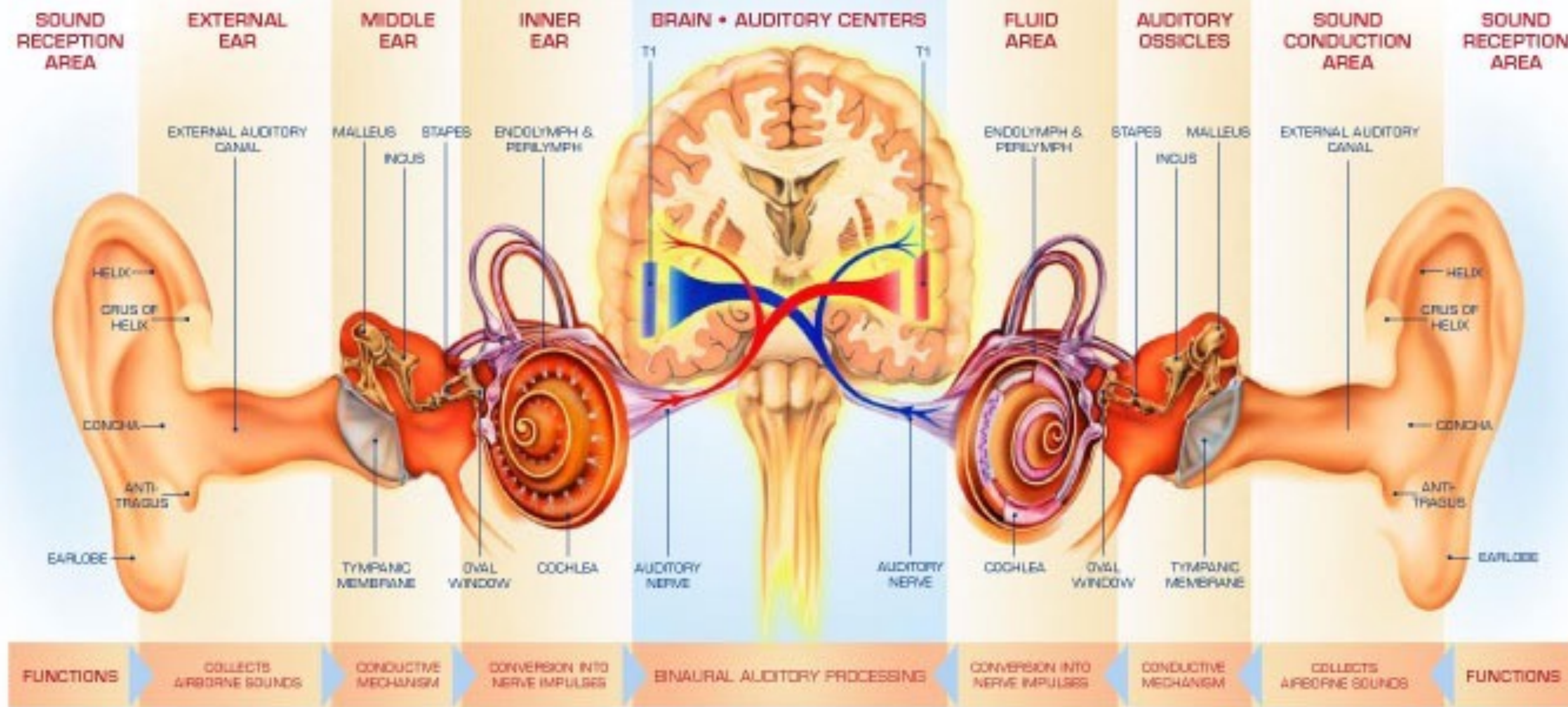
Twitter: @emiltron3000







THE ANATOMY OF BINAURAL HEARING



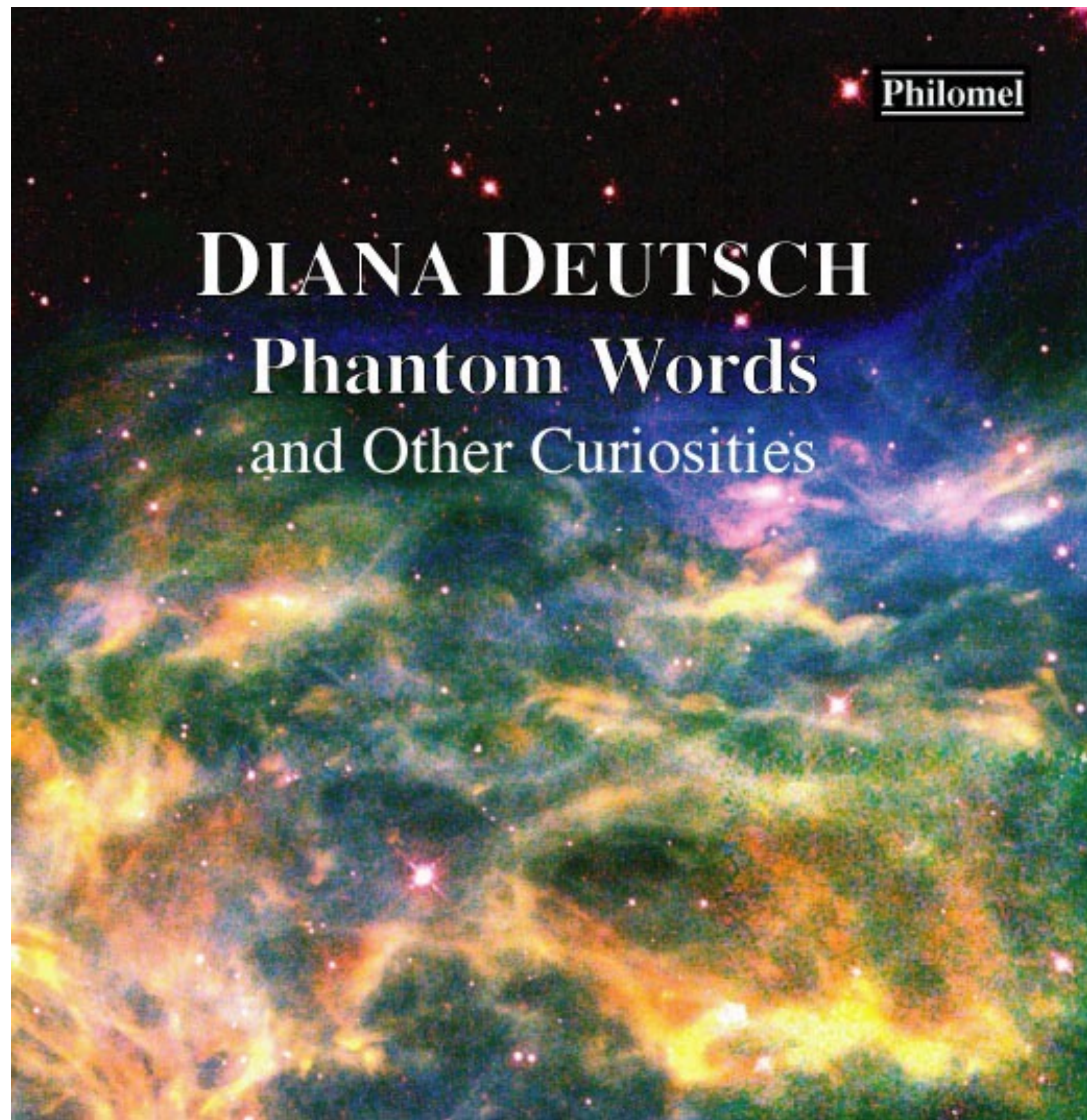
Philomel

DIANA DEUTSCH
Musical Illusions and Paradoxes

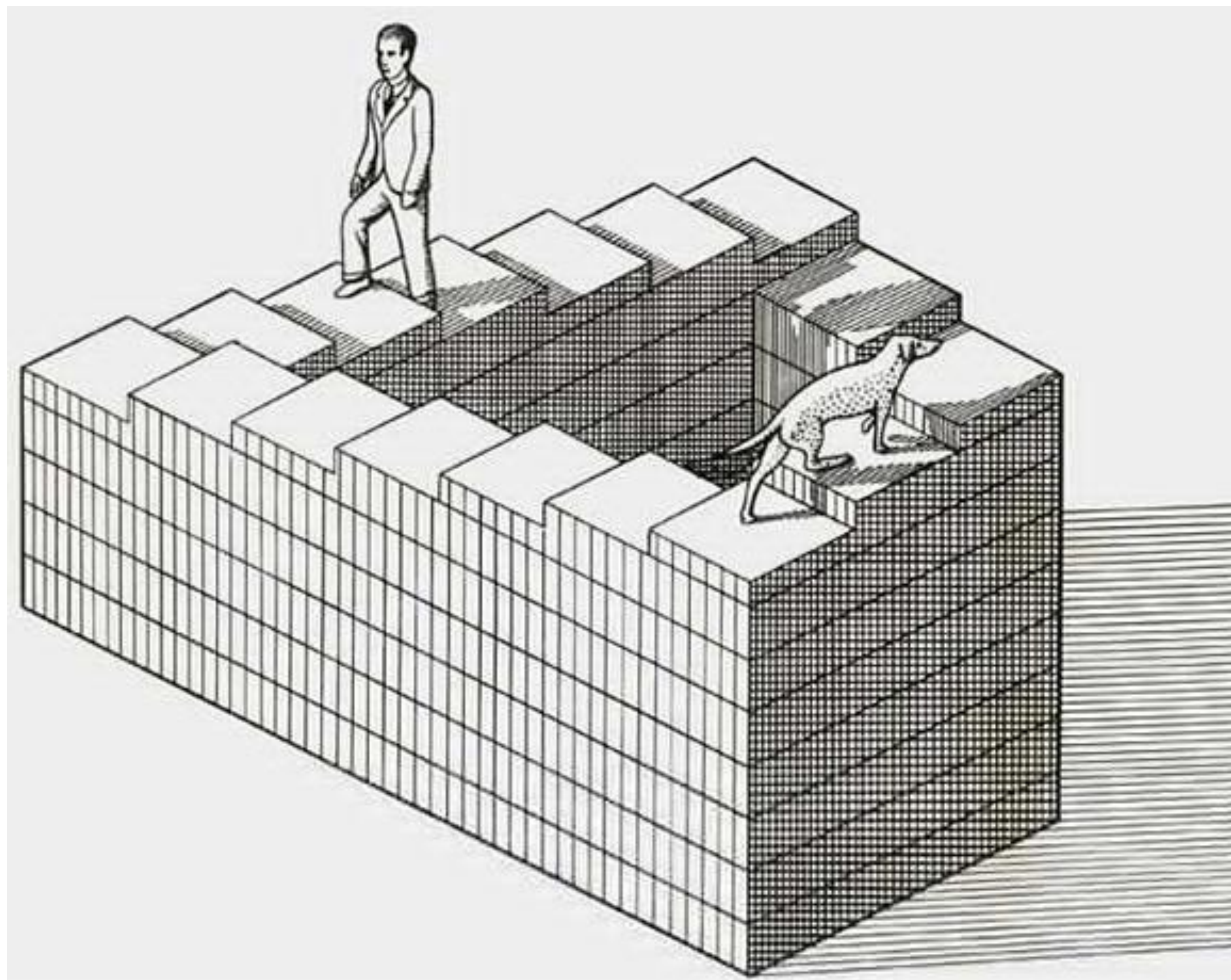


Philomel

DIANA DEUTSCH
Phantom Words
and Other Curiosities



Shepard Tones



Sinusoidal Speech



We hear what we're told
to hear.



“You have a very
minor case of serious
brain damage.”

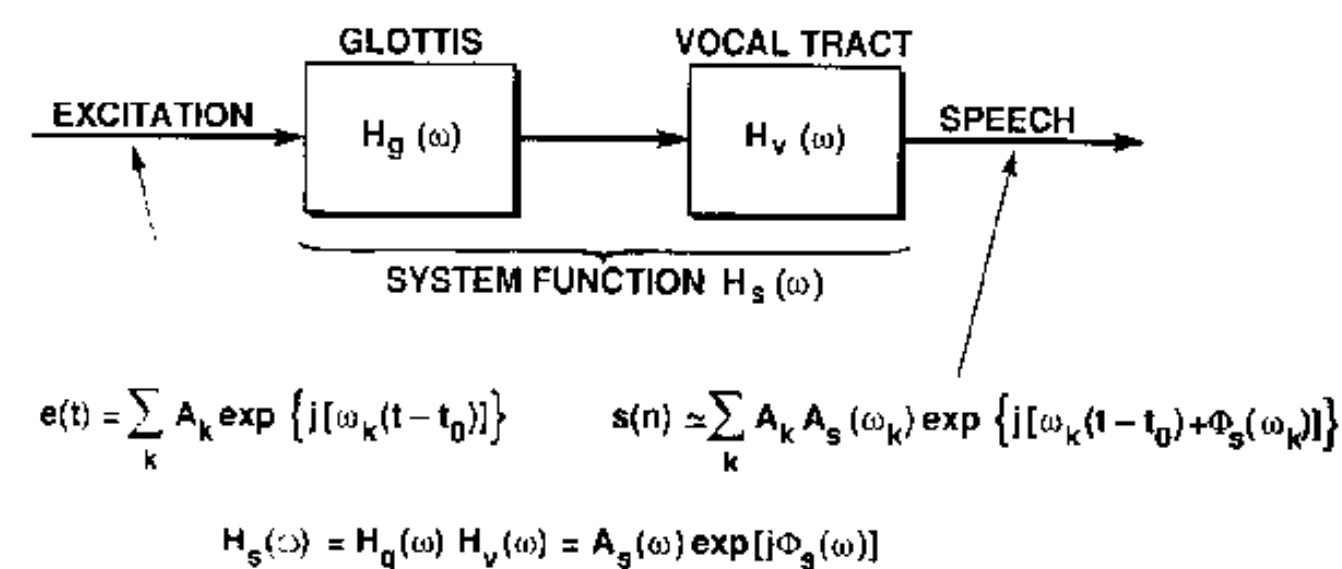


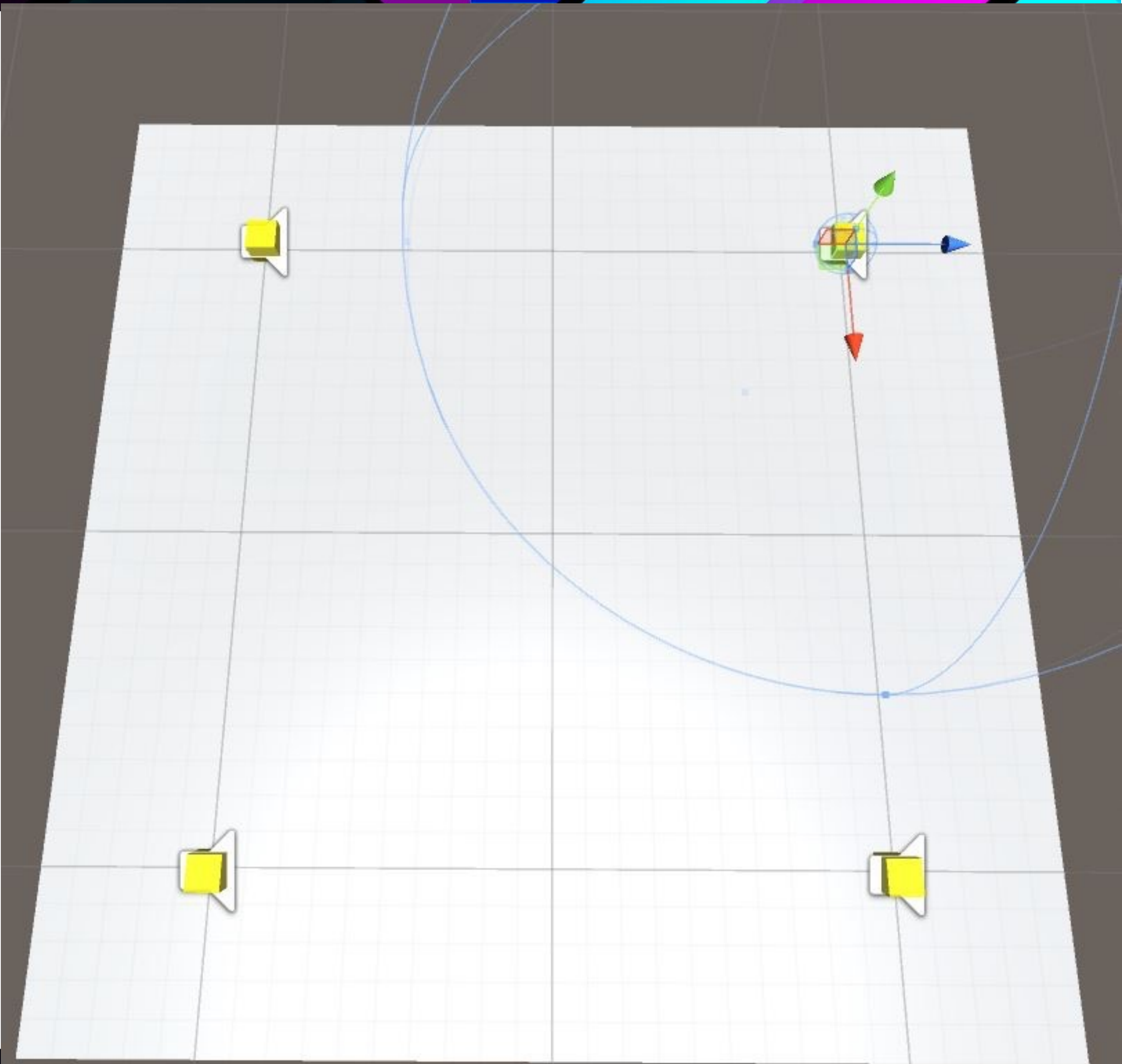
Figure 1 Speech production sinusoidal model

Emitter 1: “... .. come ... you... person... says... testing”

Emitter 2: “...done... test... a... what... weren't... that”

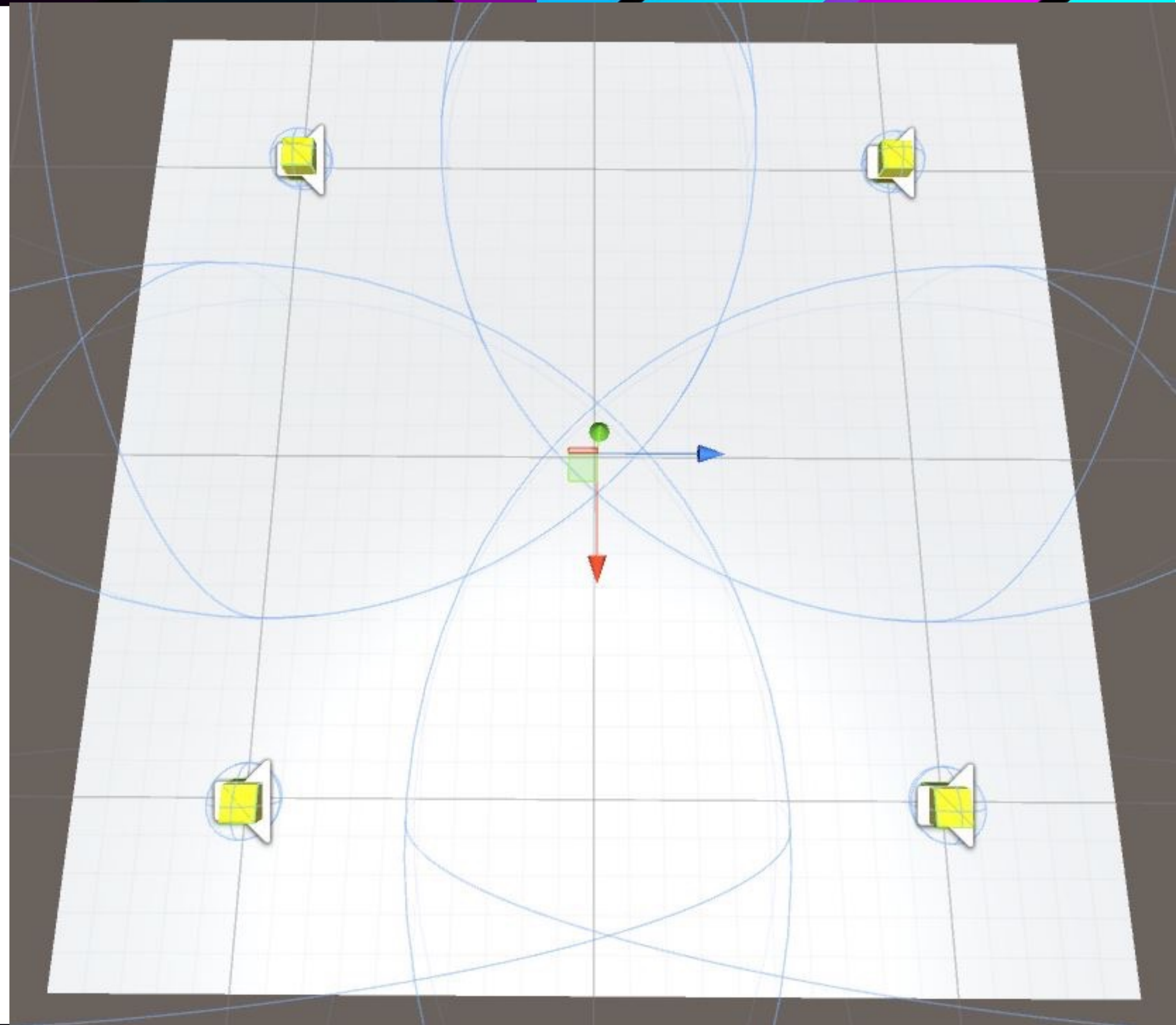
Emitter 3: “well... the.... are... that's... we... for...”

Emitter 3: “... .. here ... results... horrible.. it... even”

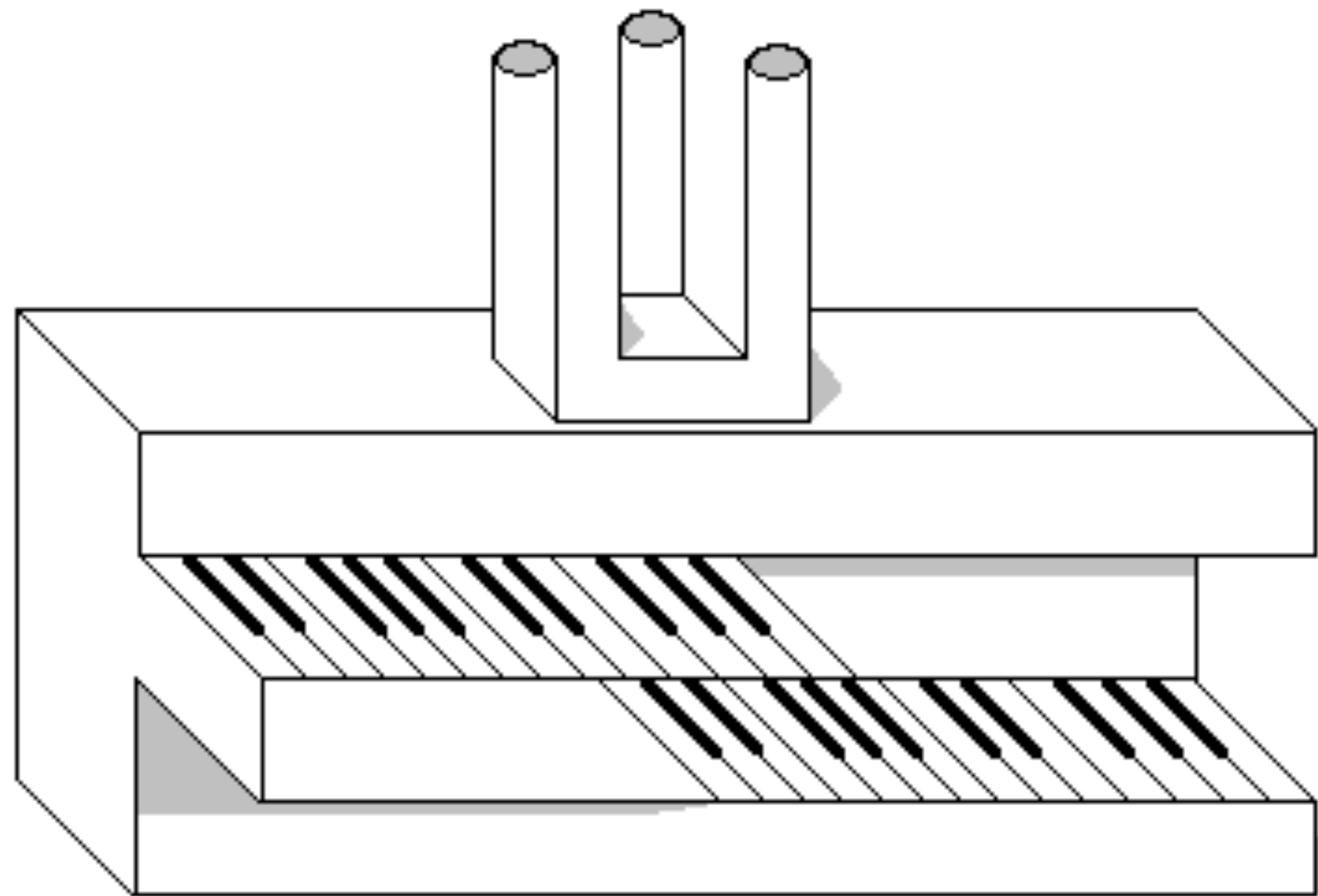


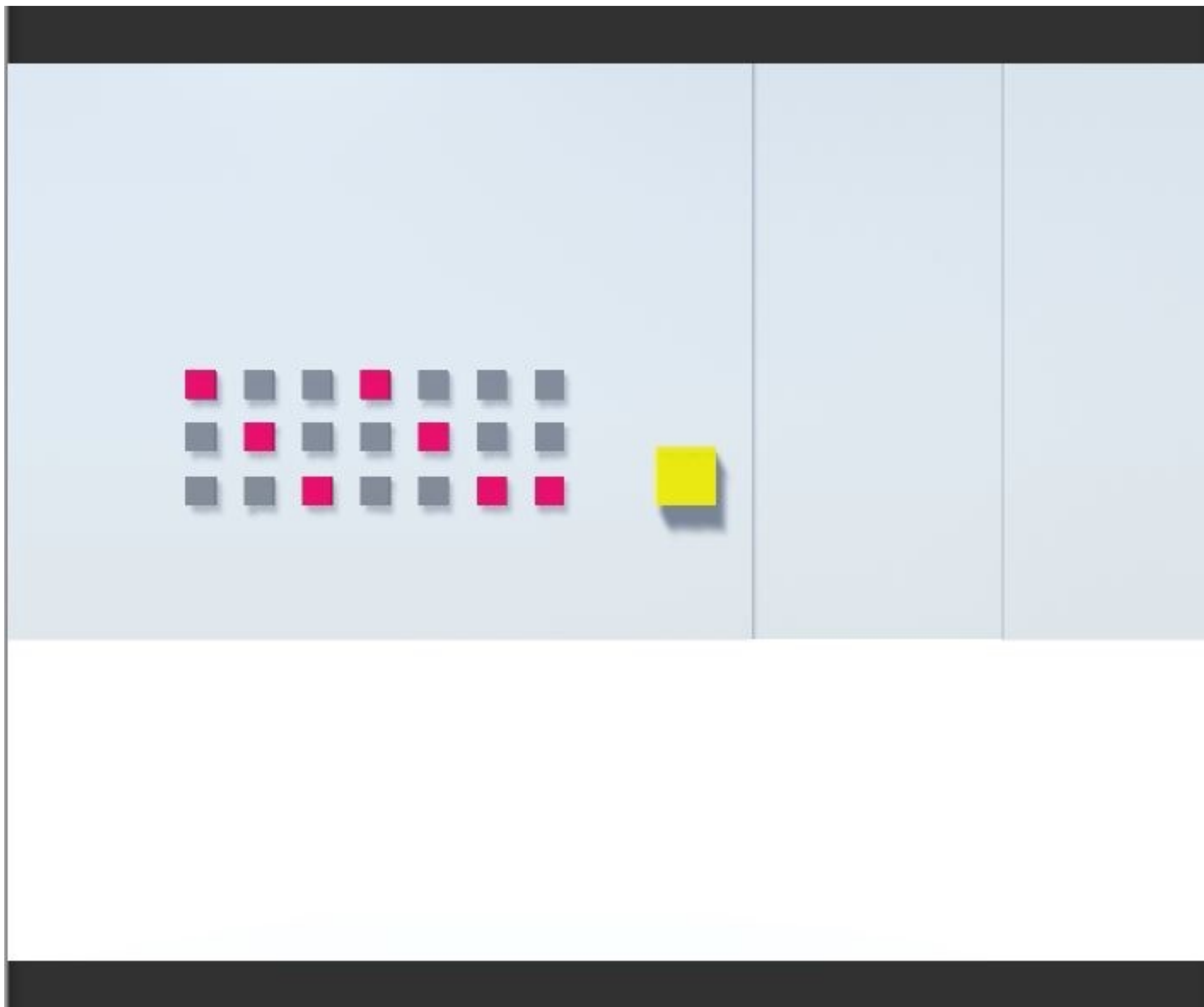
“Well Done. Here come the Test Results: “You are a horrible person”. That's what it says. We weren't even testing for that.”

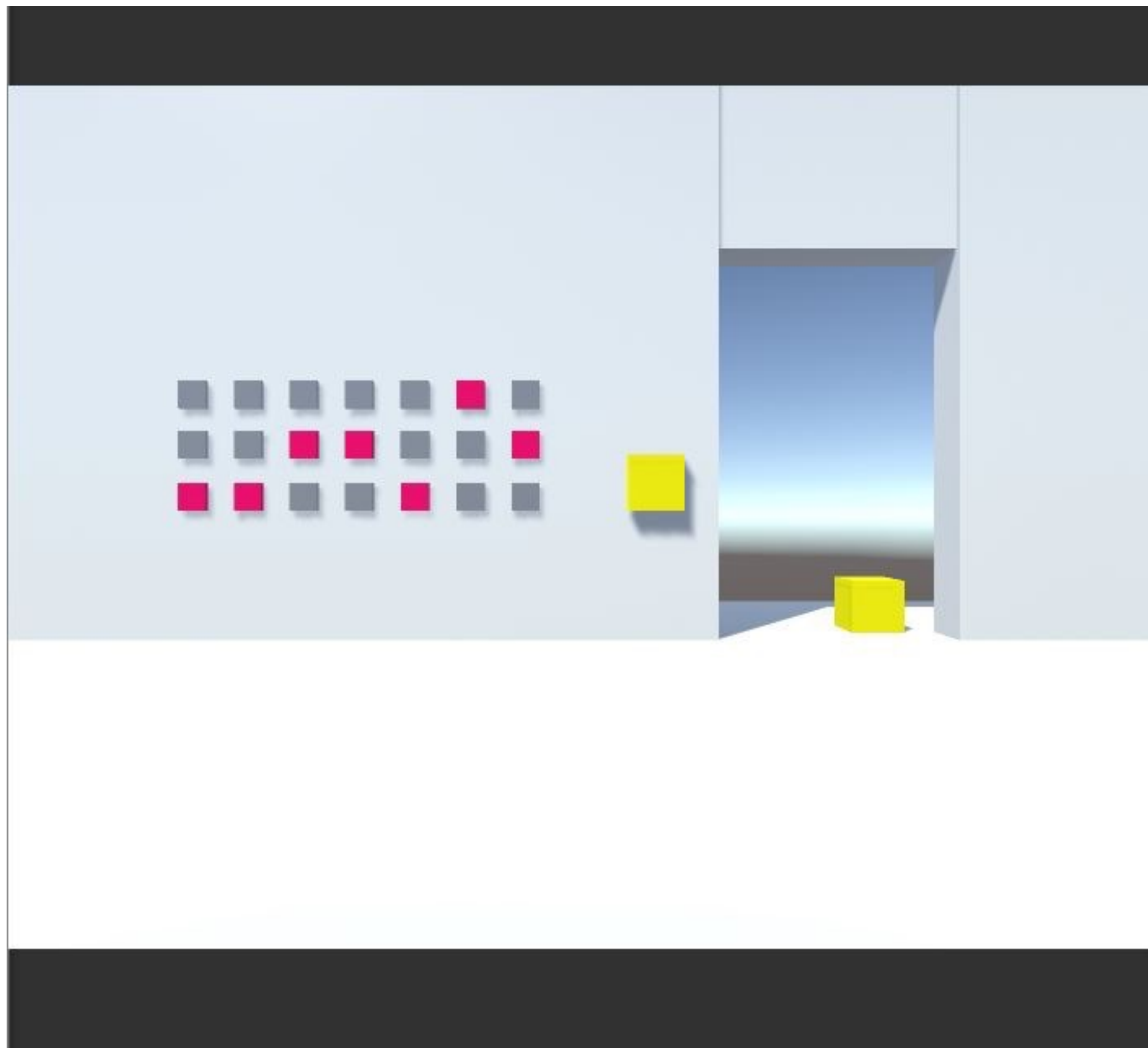
- Glados, Portal 2



Encoding Music Using Octaves







You will hear words that aren't
really there.



Phantom Speech



*window, welcome, love me, run away, no
brain, rainbow, raincoat, bueno, nombre,
when oh when, mango, window pane,
Broadway, Reno, melting...*



Simulations of neuro-auditory disorders:

Auditory Agnosia

Amusia

Pure Word Deafness

Gaze Tinnitus



FURTHER READING:

Audio Illusions

Psychoacoustics

Diana Deutsch

Google Scholar

Auditory Cortex

Oliver Sacks

Sound Uncovered app for iPad



Emily Ridgway

Audio, Valve Software

My mum, psychoacoustics and gameplay

Web: emilyindustries.com

Twitter: @emiltron3000



Taiko Drumming

Daniel Olsén
www.danielolsen.net
[@olsefaeken](https://twitter.com/olsefaeken)





Experience It Live



Street Festival In Tokyo



San Francisco Taiko Dojo



Grand Master Seiichi Tanaka



Received Awards from the Japanese Emperor and President of United States.

Trained under Daihachi Oguchi, the creator of the modern taiko ensemble.

Brought Taiko to America 1968



Japanese discipline and mindset



Take Nothing For Granted





Be mindful of things around you

- Be humble and listen to others
- Appreciate the art form
- Never stop learning





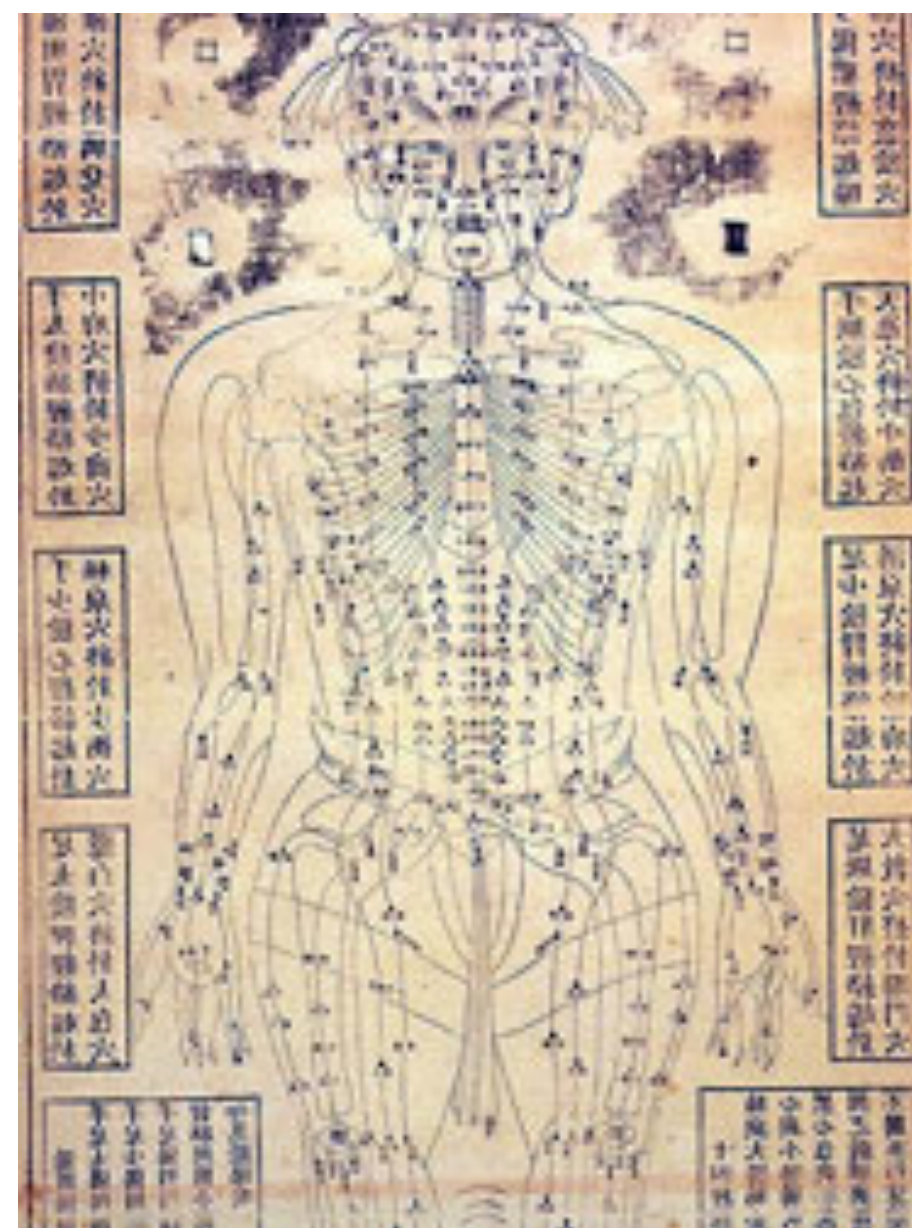
Milestone



Perspective

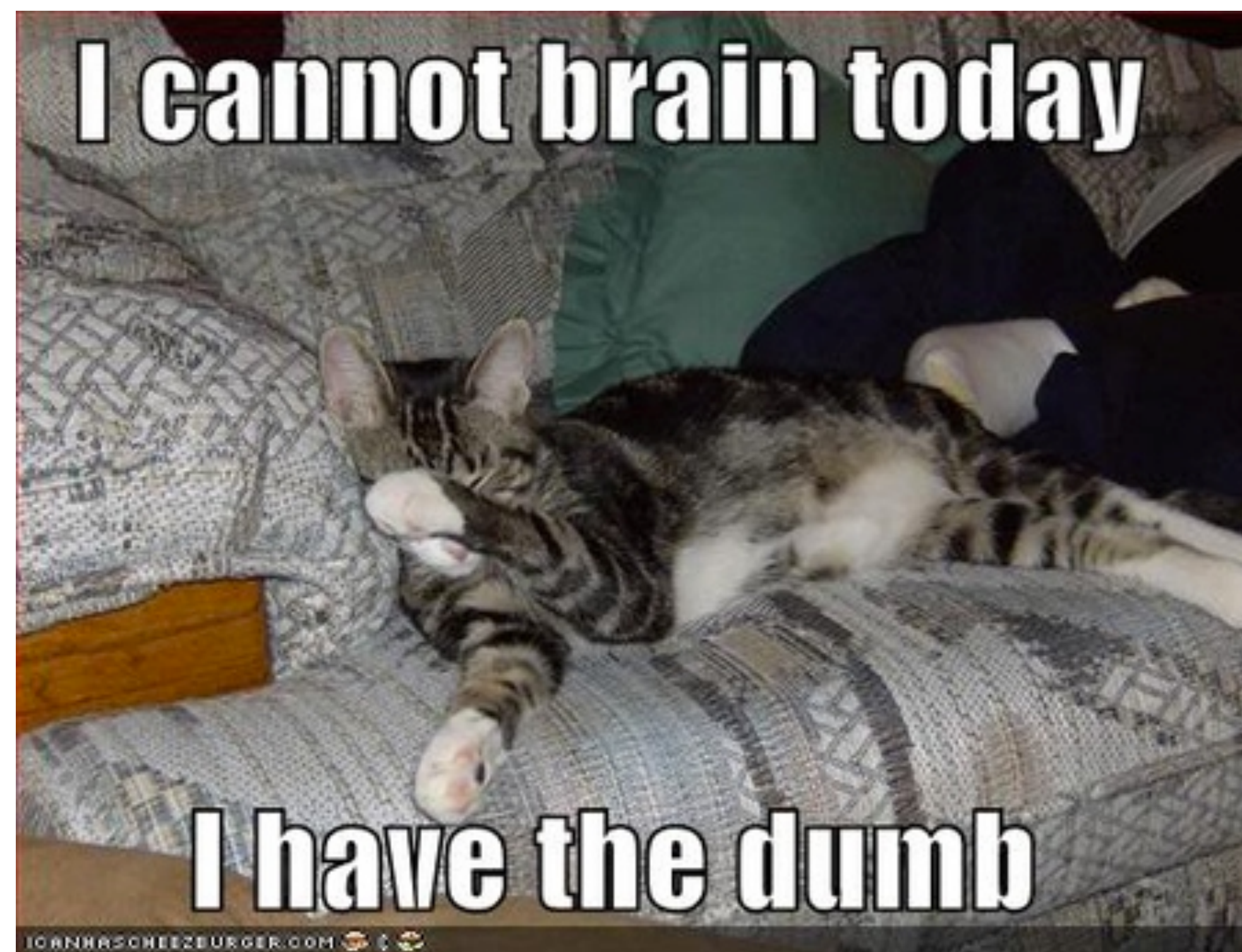
Body and Mind

- Focus but don't overthink
- Instinct

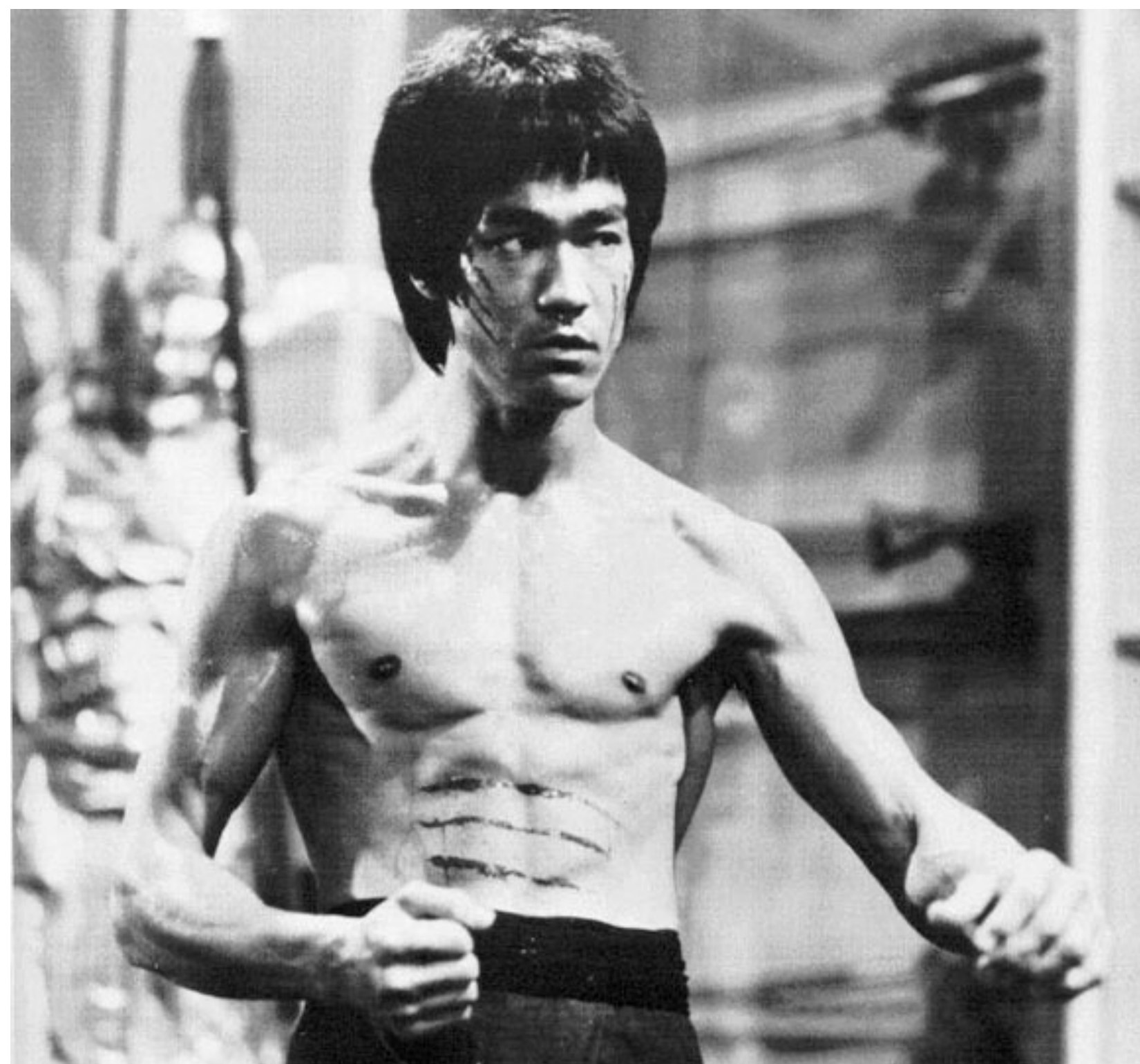


Get out of your head space

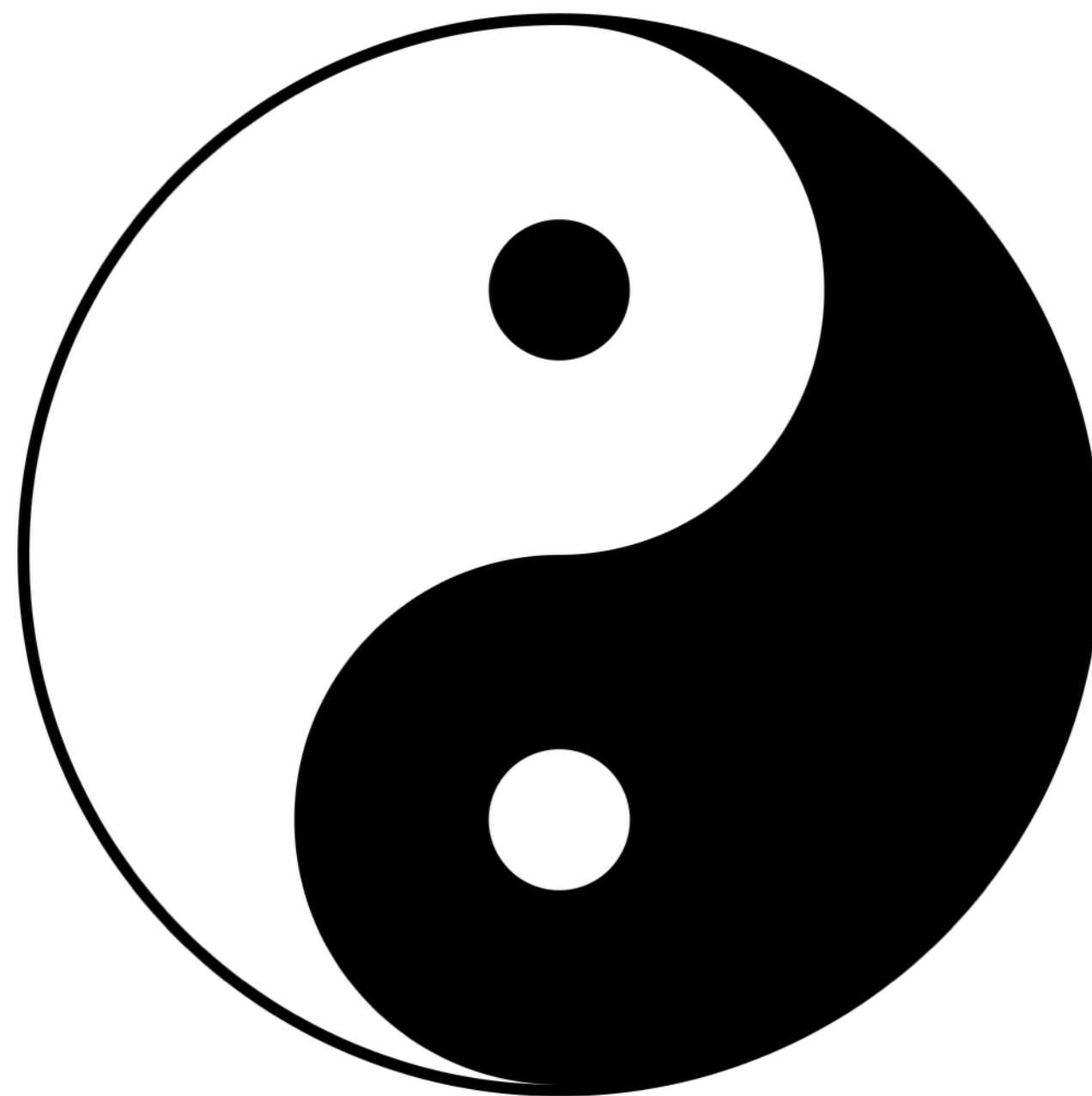
- Feel
- React
- Move



Natural instinct and control



Yin yang





Push yourself

- Exceed your limitations they are only mental anyway





Reward is in patience



Relax



It's not supposed to be easy

- If it was easy we wouldn't need professionals



Taiko

Daniel Olsén
www.danielolsen.net
[@olsefaeken](https://twitter.com/olsefaeken)



The Sound of Overcoming Injury

Kristen Quebe

Senior Sound Designer, Riot Games

Contact Information

gameaudiogirl@gmail.com [@GameAudioGirl](https://twitter.com/GameAudioGirl)

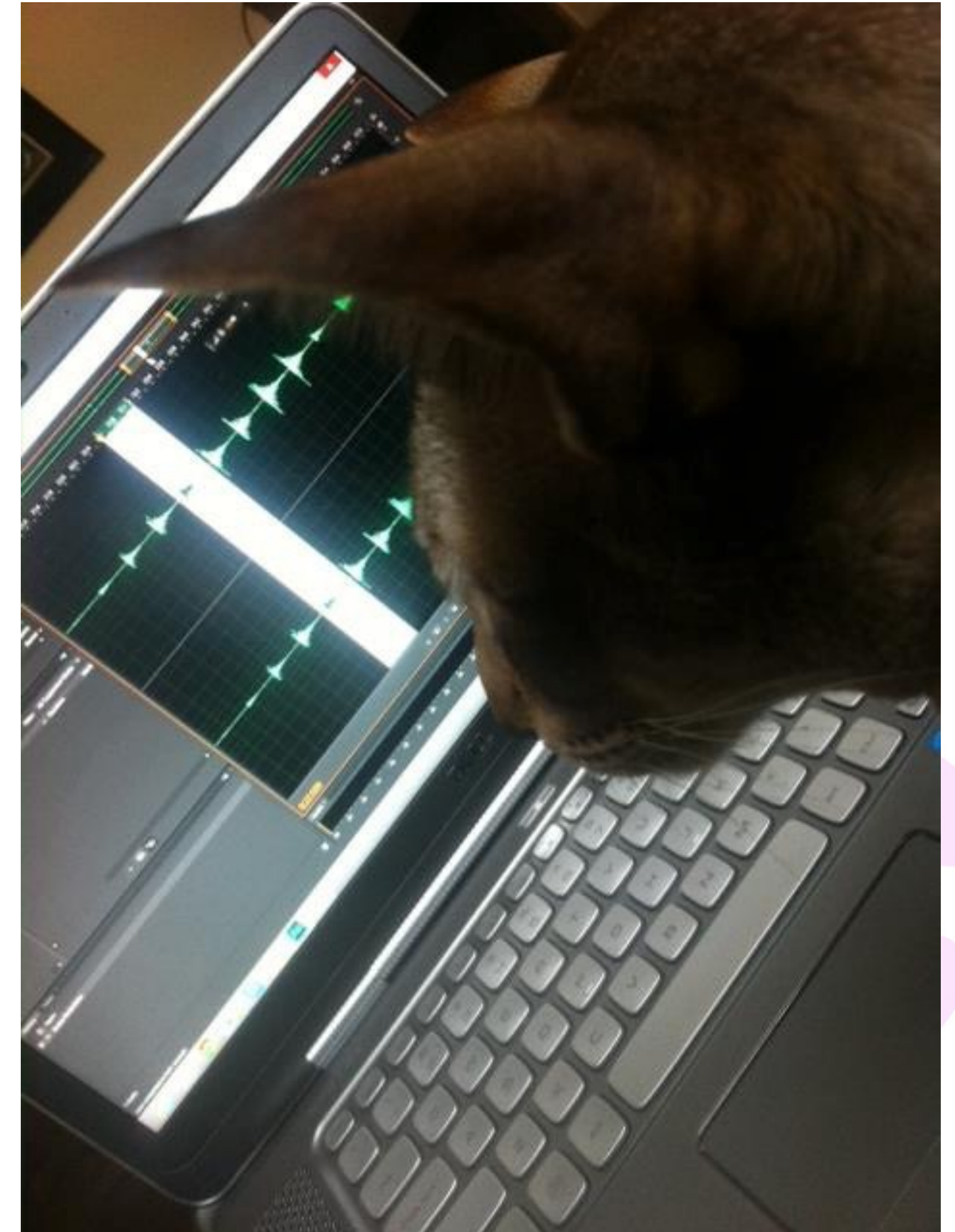


Hello



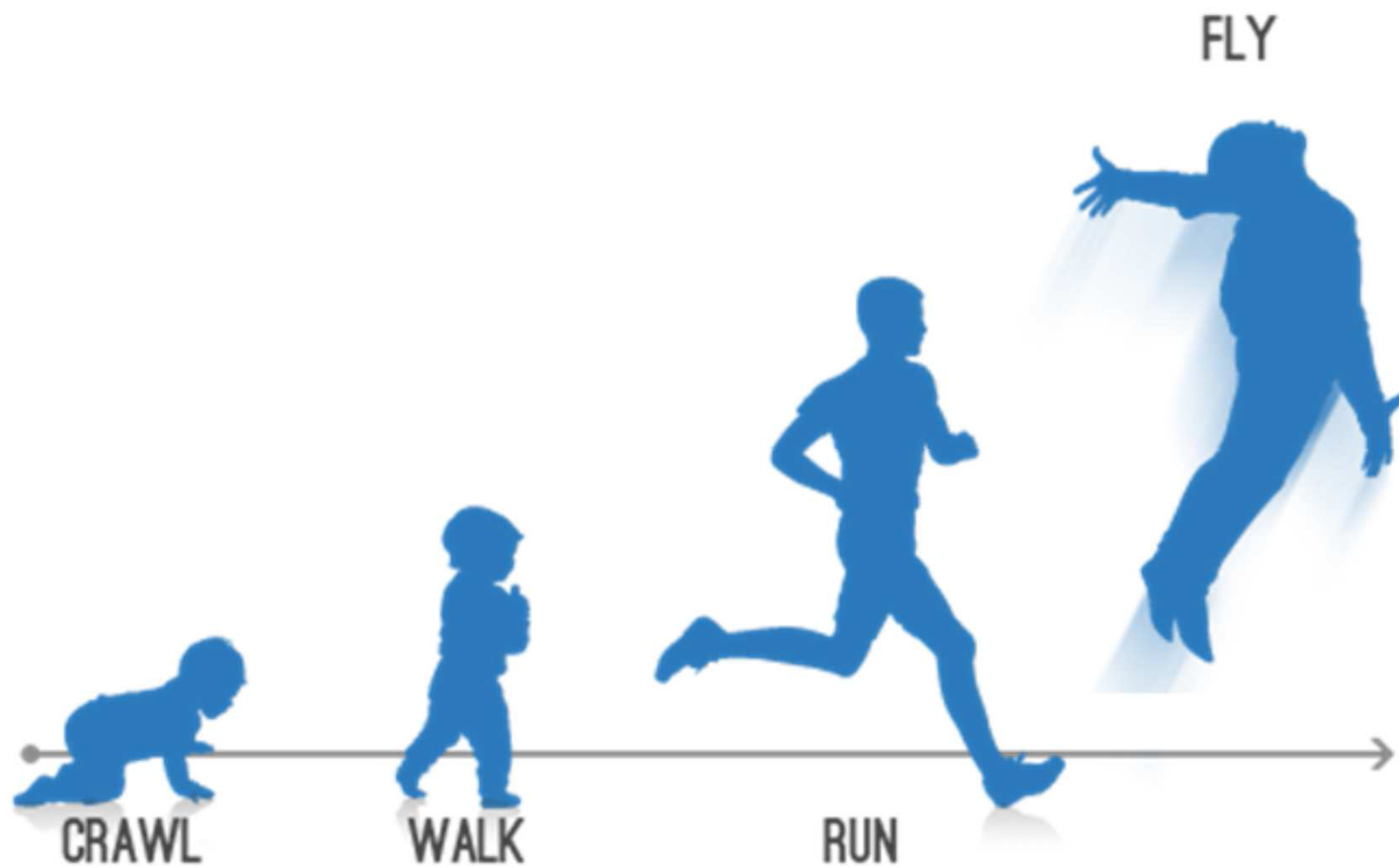


A Personal Story



This was me







An Emotional Journey

- Progress wasn't on my schedule
- Worried what this meant for work



Time to Think



Realizations

- I need to be accountable and responsible for both work and my recovery process.



P₃ A₁ T₁ I₁ E₁ N₁ C₃ E₁

I Needed to Ask for Help



Test are Heroes

- Test would be my movement
- I would be the ears



Time Management

- My schedule
- How do I manage this



At work



Leaving My Comfort Zone



Next Project



Credit Where Credit is Due

- People surprised me
- Projects found a way



This Experience Offered Growth

- Learning how to successfully fail
- Pushing to try new things



How This Impacted My Creativity

- The only way I could fail was to not try to take risks
- Be more forgiving of myself through exploration phases

Acknowledging Progress

- Changing how I view success
- Minimizing Frustration



The Sound of Overcoming Injury

Kristen Quebe

Senior Sound Designer, Riot Games

Contact Information

gameaudiogirl@gmail.com [@GameAudioGirl](https://twitter.com/GameAudioGirl)



Always Listening:

Inspired By Everything You Hear

Andy Martin

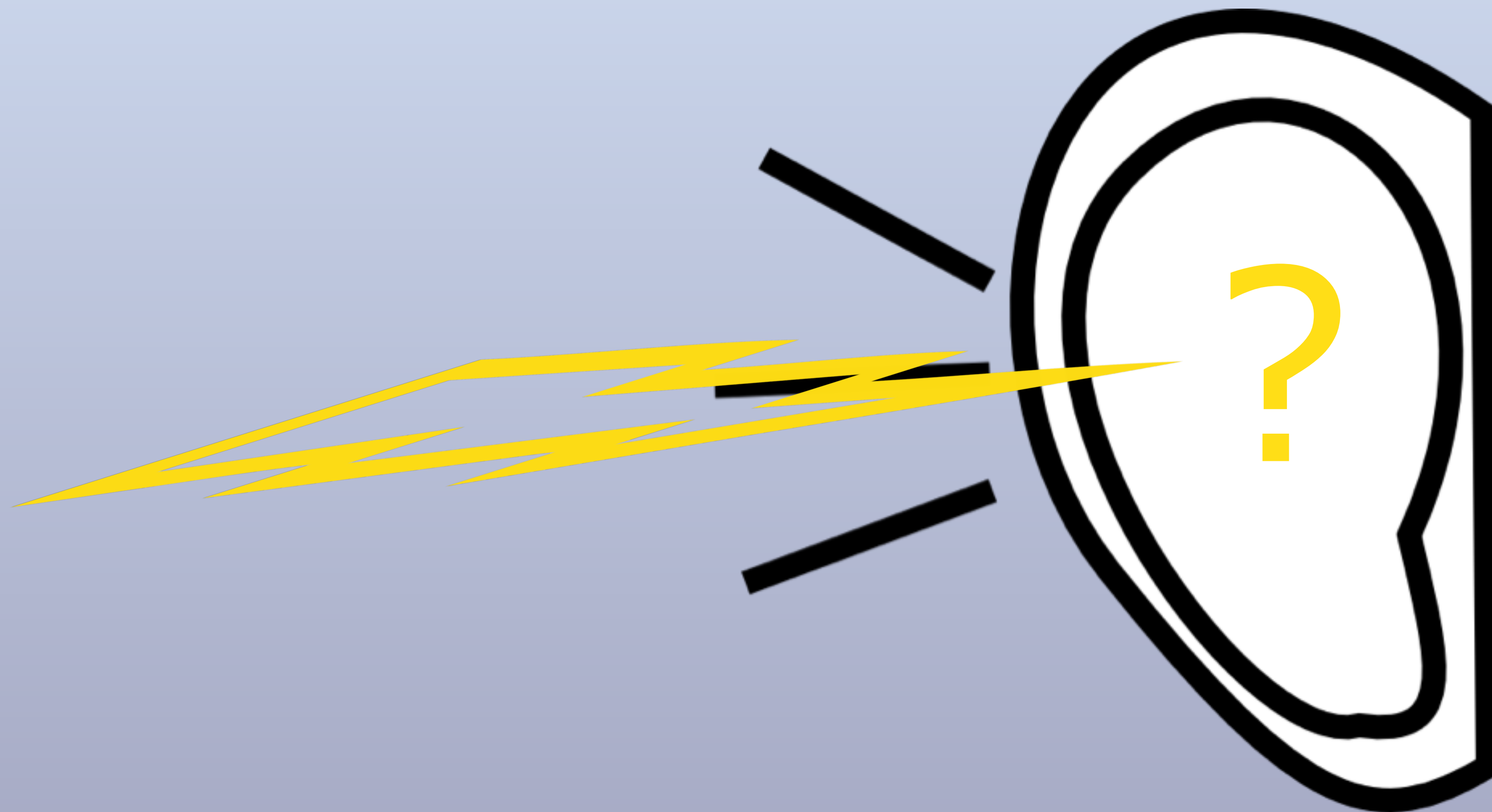
soundeziner.com

soundcloud.com/soundeziner

northwestsoundscapes.com

@soundeziner







hearing
hearing hearing
hearing hearing
hearing hearing
hearing hearing
hearing hearing
hearing hearing
hearing hearing
hearing















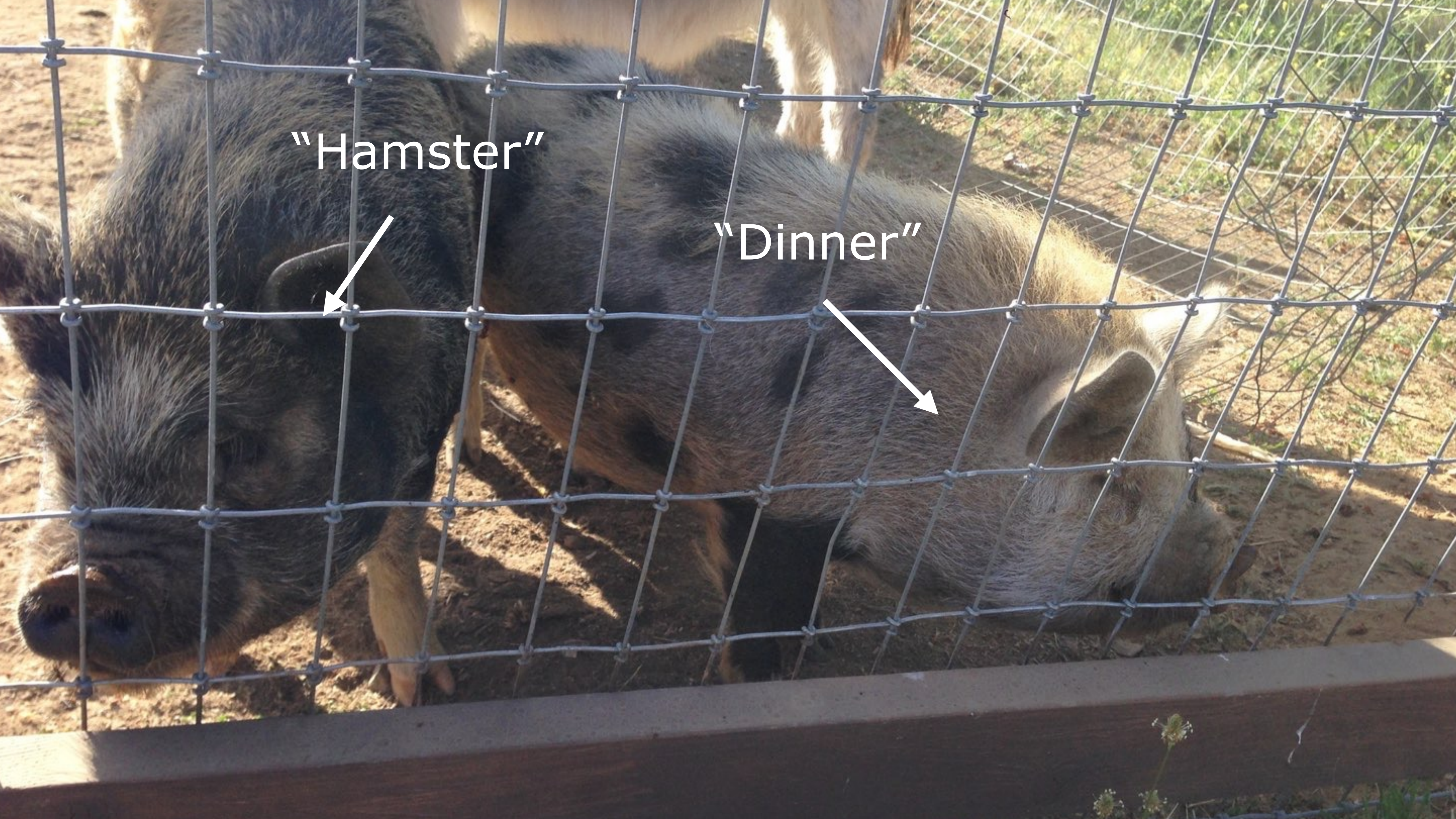




“Hamster”



“Dinner”

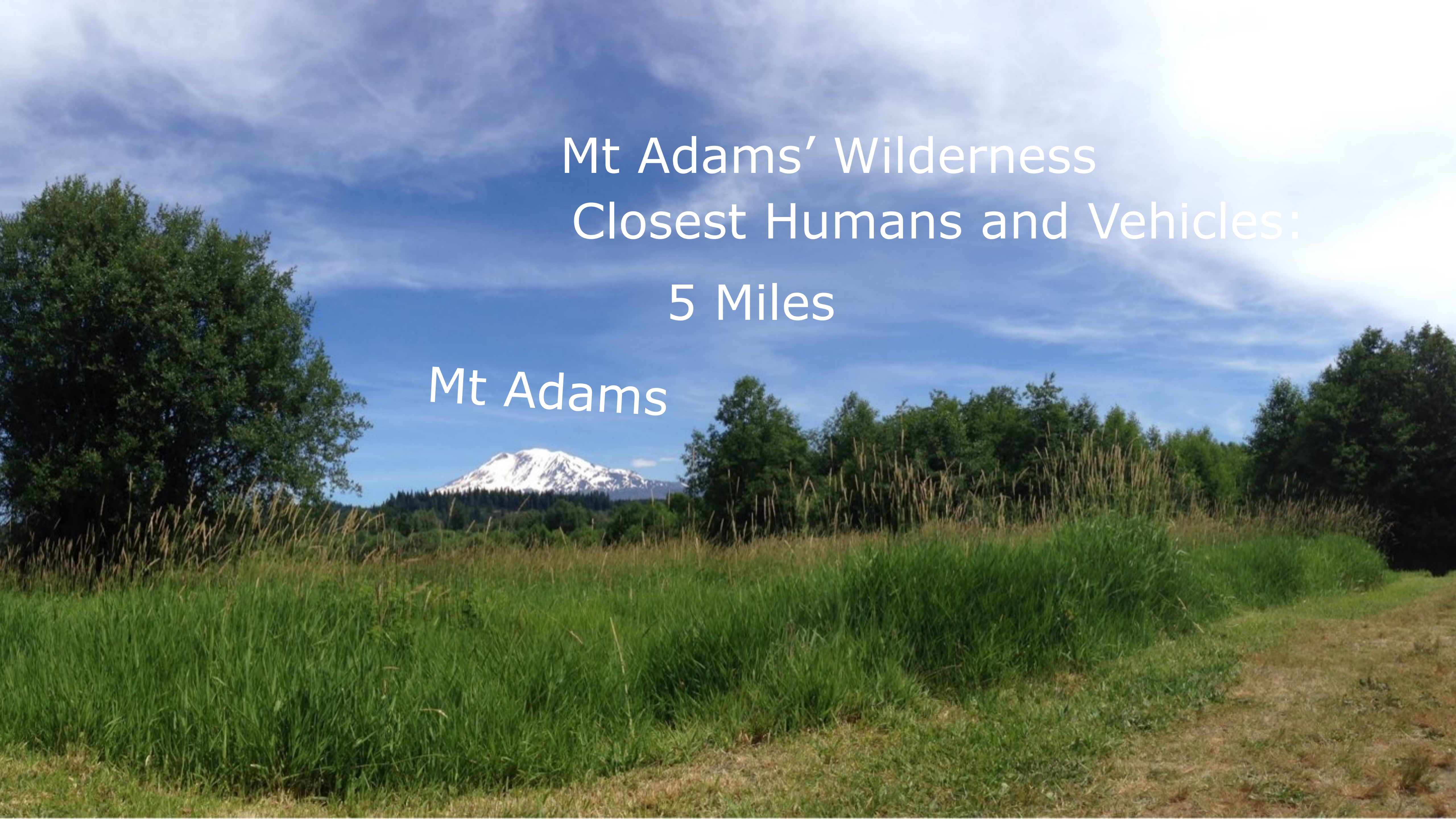






Mt Adams' Wilderness
Closest Humans and Vehicles:
5 Miles

Mt Adams




Target Shooters, 1/2 mile







A wide-angle photograph of a winter landscape. In the foreground, a river flows from the bottom left towards the center, with some white foam visible. The left bank is covered in a layer of snow and has several tall, dark evergreen trees. The right bank is also snow-covered and features a large, light-colored log lying horizontally. In the background, a steep hill rises, covered in a dense forest of evergreen trees. The sky is a pale, overcast blue. The text "(rock moving under water) (twice)" is overlaid in white, sans-serif font in the center of the image.

(rock moving
under water)
(twice)

Andy Martin

soundeziner.com

soundcloud.com/soundeziner

northwestsoundscapes.com

@soundeziner



Lessons from the Ballet

Jaclyn Shumate
jaclynshumate@gmail.com
@shujaxaudio



In the Middle, Somewhat Elevated

Music Thom Willems, in collaboration with Les Stuck
Choreography William Forsythe
Staging Kathryn Bennetts
Scenic, Costume, and Original Lighting Design William Forsythe

Laura Tisserand Jerome Tisserand Elizabeth Murphy

Elle Macy Steven Loch
 Leta Biasucci Benjamin Griffiths

Kylee Kitchens Emma Love Suddarth

Premiere: May 29, 1987; Paris Opera Ballet
 Pacific Northwest Ballet Premiere: March 16, 2000

POST-PERFORMANCE Q&A

Please join Artistic Director **Peter Boal**, with Company dancers **Kyle Davis** and **Price Suddarth**, for an informal question-and-answer session in the Nesholm Family Lecture Hall immediately following the performance.

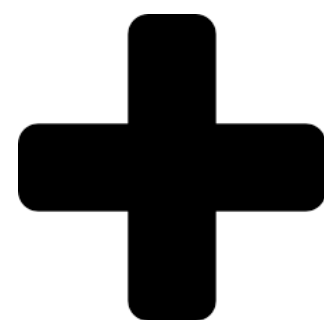
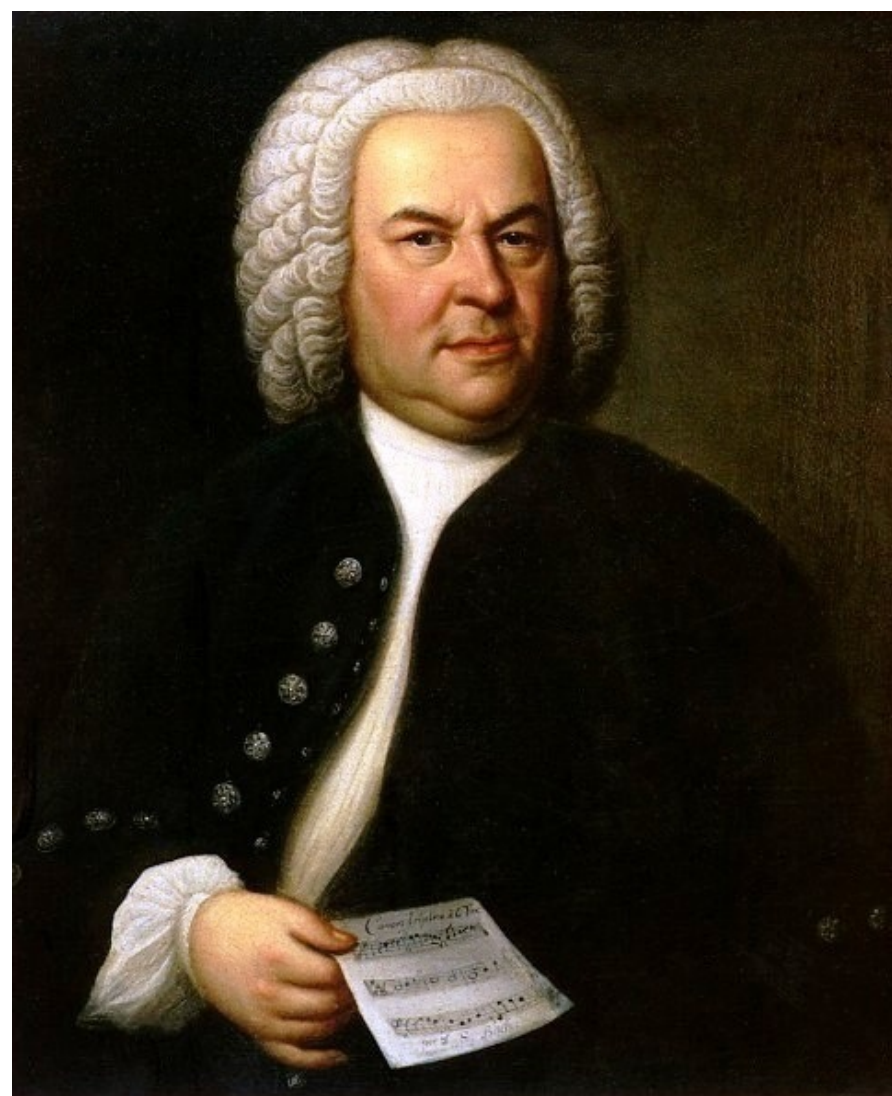


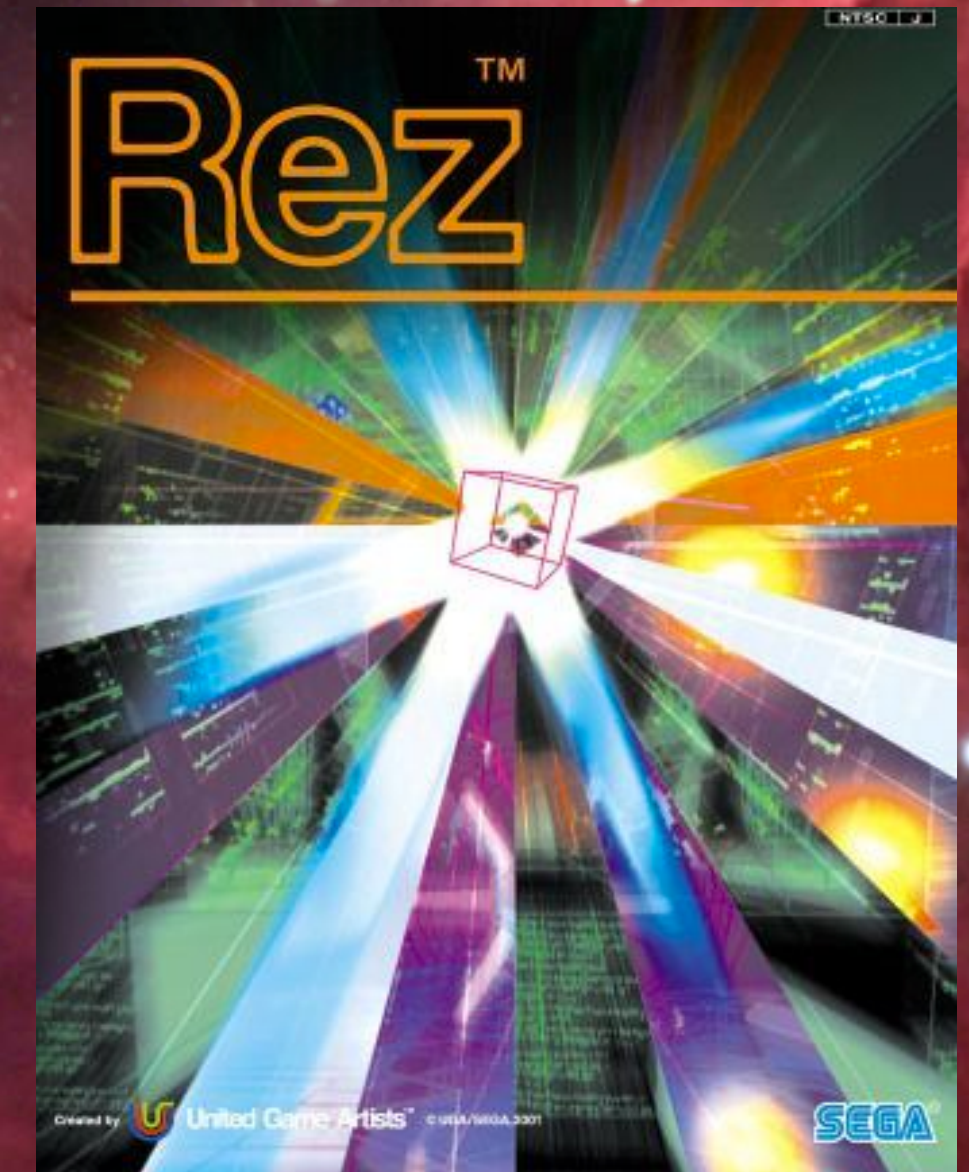
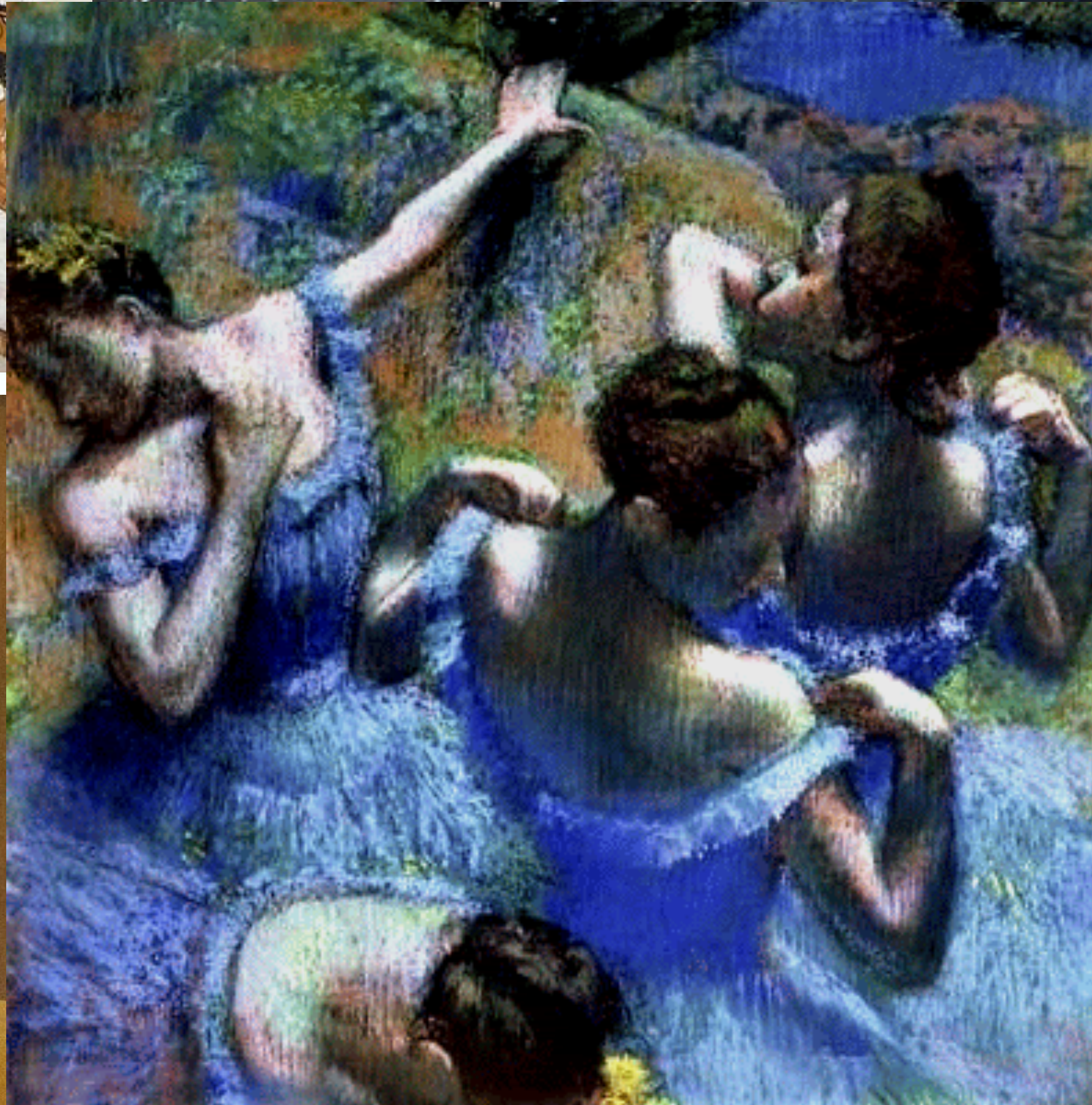
NEW SUITE MUSIC DETAILS

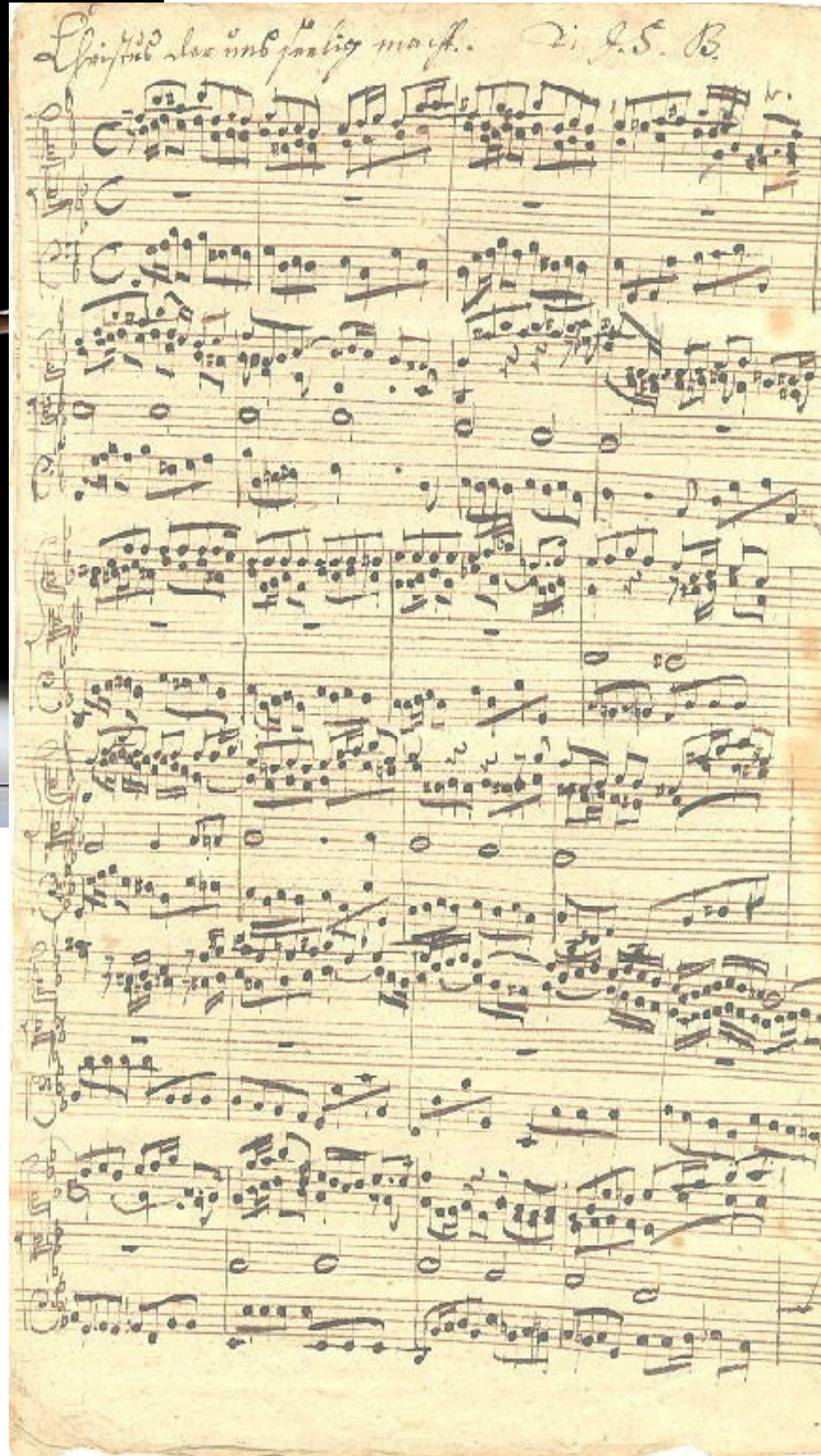
George Frideric Handel: from *Concerti grossi*, Op. 6, 1736-1741
 Handel 1 – Largo e piano, from Concerto grosso No. 4 in A minor
 Handel 2 – Tempo giusto, from Concerto grosso No. 6 in G minor
 Handel 3 – Allegro ma non troppo, from Concerto grosso No. 2 in F major
 Handel 4 – Allegro, from Concerto grosso No. 3 in E minor
 Luciano Berio: from *Duetti per due Violini*, Vol. 1, 1979-1983
 Berio 1 – No. 8 "Peppino"
 Berio 3 – No. 30 "Massimo"
 Berio 2 – No. 24 "Aldo"
 Johann Sebastian Bach: Allemande, from Partita in B minor for solo violin, BWV 1002, 1720



The combination of music and visuals created a 3rd dimension of emotion that neither could achieve on their own.





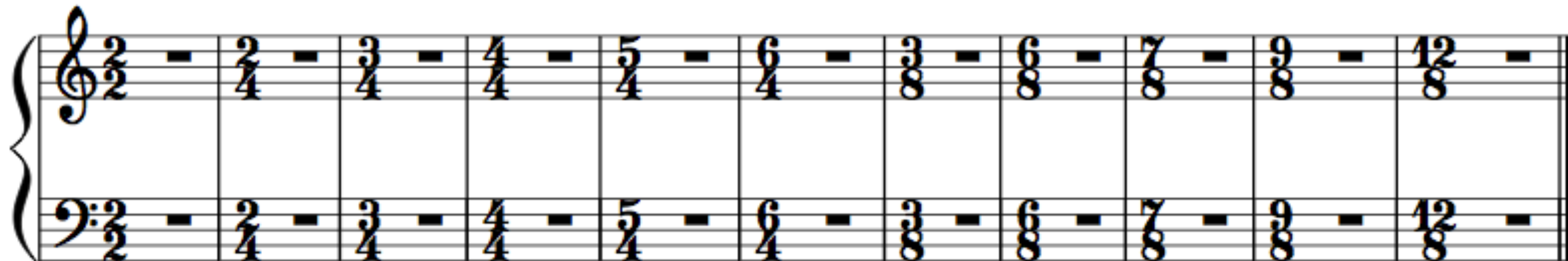




Interactive Cinematic Moments should be inspiring.

Sync animations to the beat!

Have a global game clock that you can tie into when you want to!



Challenges:

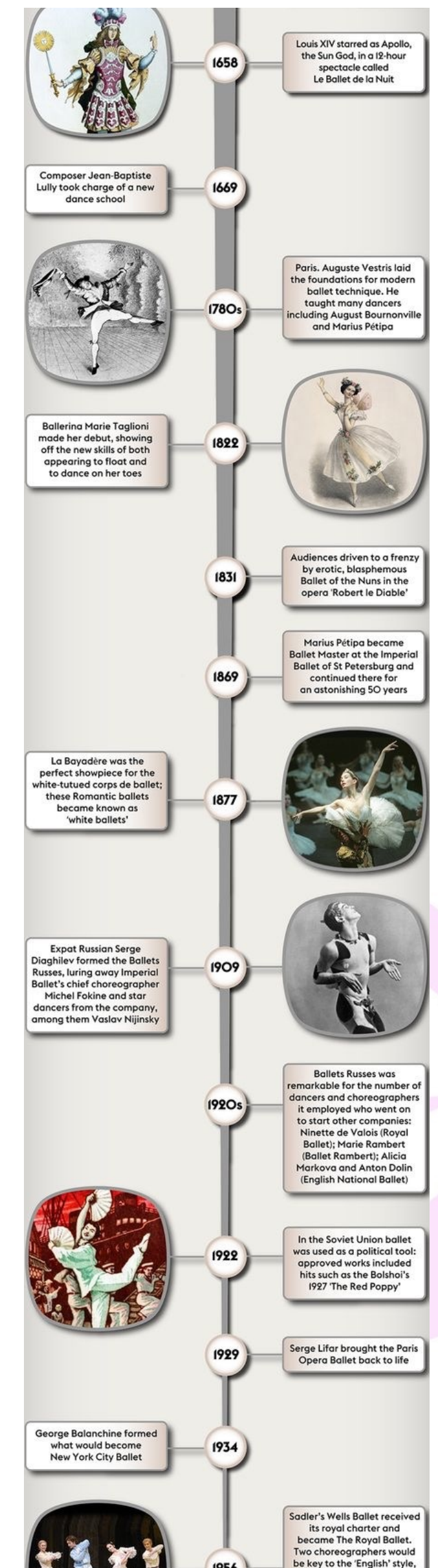
- Esthetics
- Technical
- Production/scheduling
- Communication





What parallels exist between dance and game development?

Can I learn from this other medium that already has a rich and established history?





FAMOUS PAIRS:

Igor Stravinsky & George Balanchine

John Cage & Merc Cunningham

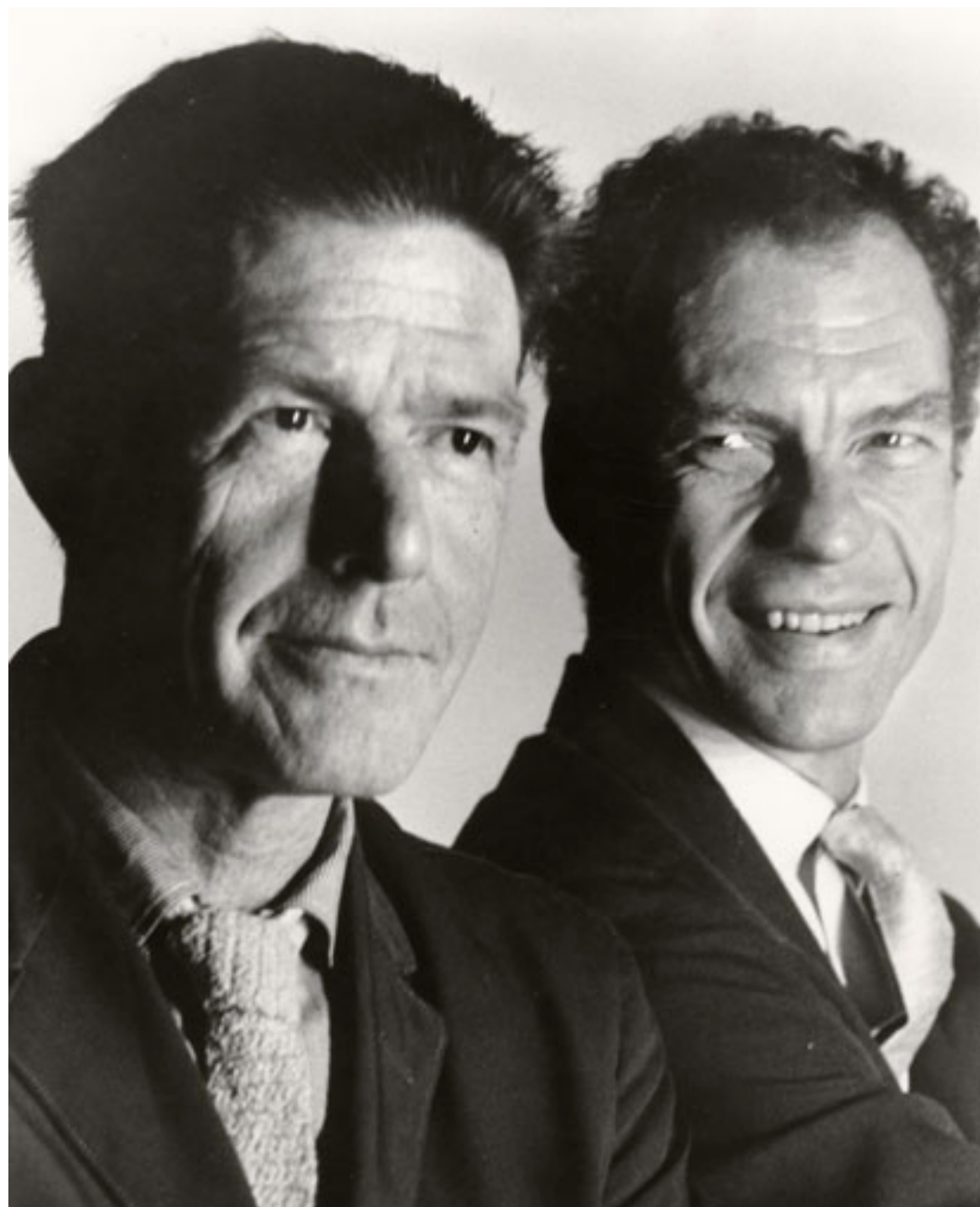
Aaron Copland & Martha Graham





Balanchine with Igor Stravinsky, working on Agon in 1957

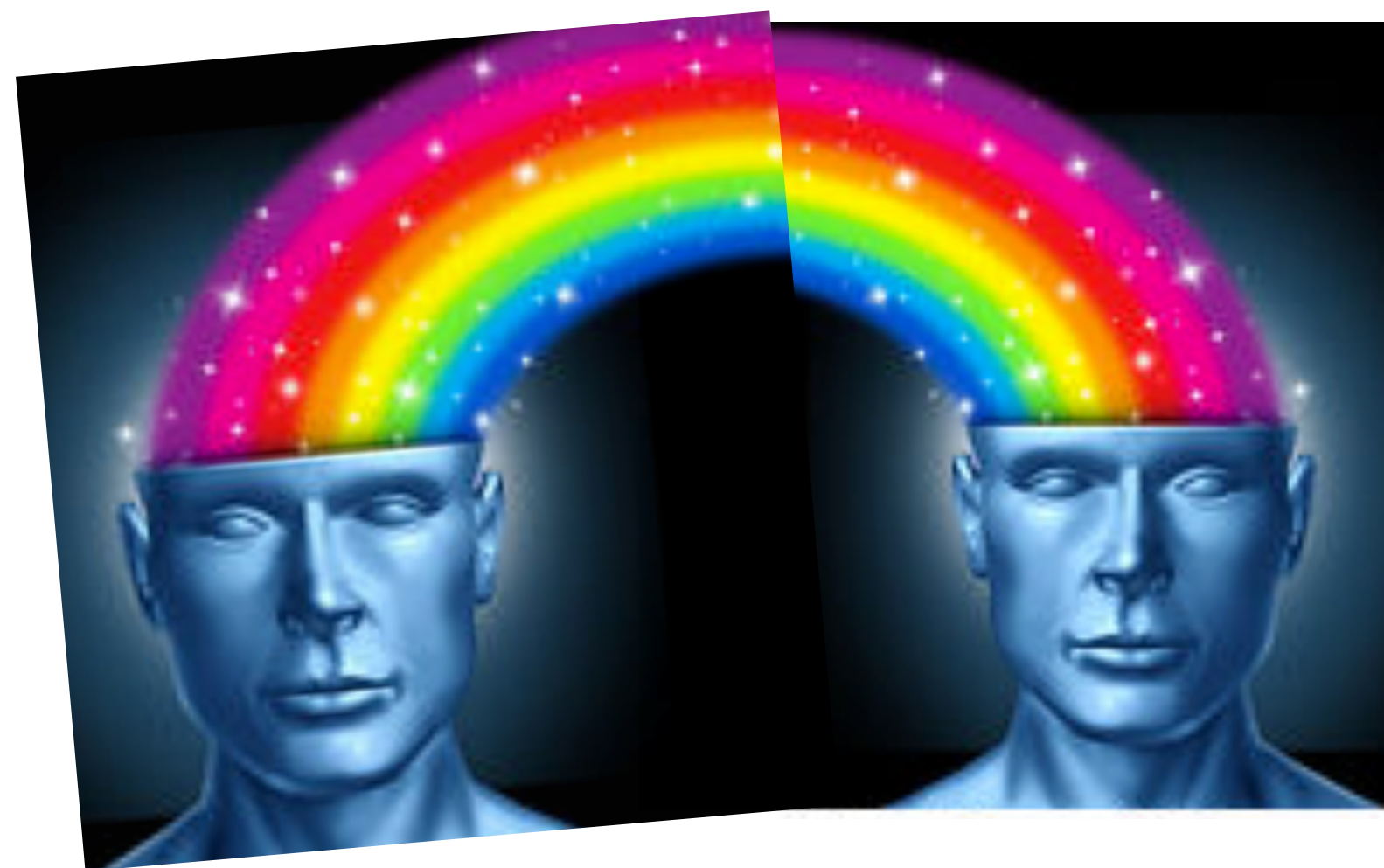
- Mutual Respect
- Chemistry
- Common Backgrounds



Merce Cunningham and John Cage
'Collaboration at a Distance'



Shared Artistic Vision



‘See the Music, Hear the Dance’

-George Balanchine

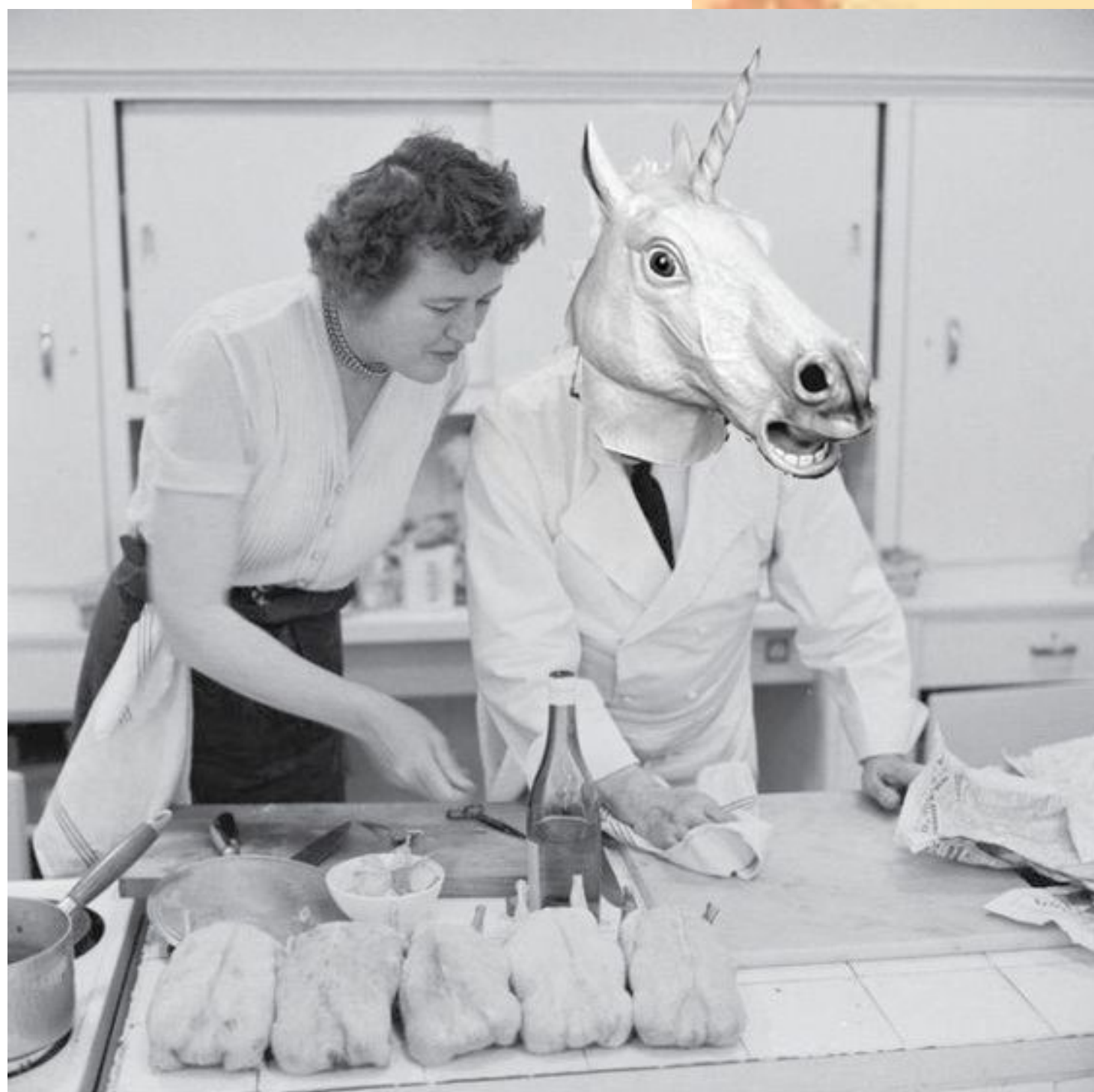
Anything goes when it comes to
the collaborative process.



Copland and Graham worked worked together to establish plot and dramatic goals.



Aaron Copeland &
Martha Graham



Recipe for Success

Ingredients:

- chemistry
- respect
- shared artistic vision
- common artistic language
- any kind of process

Duration is always
important



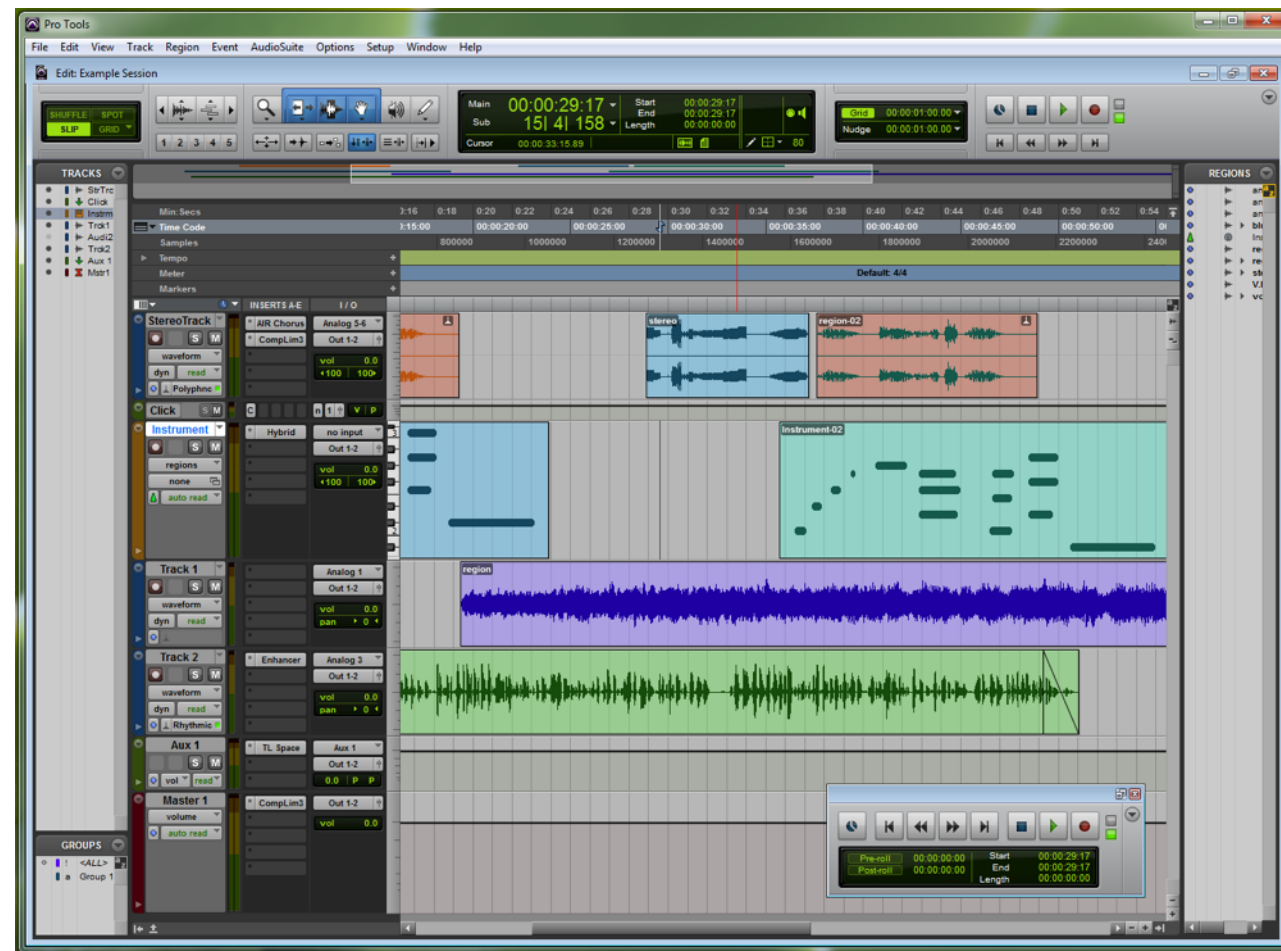
Merce Cunningham and John Cage

Artists, Audio, Designers, Programmers, Producers





Choreograph (or
animate) to existing
music

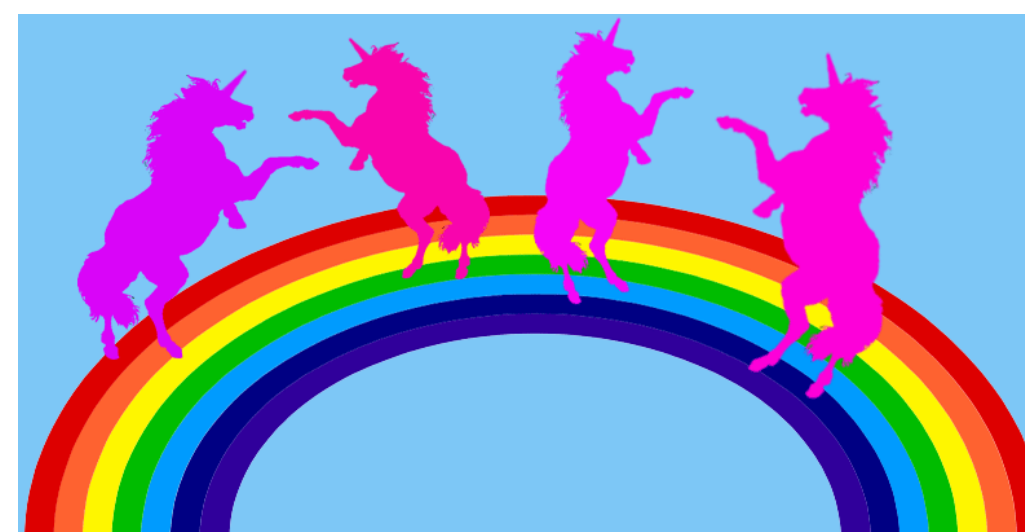


Compose to an
already completed
Dance (or game)



Work In a Vacuum

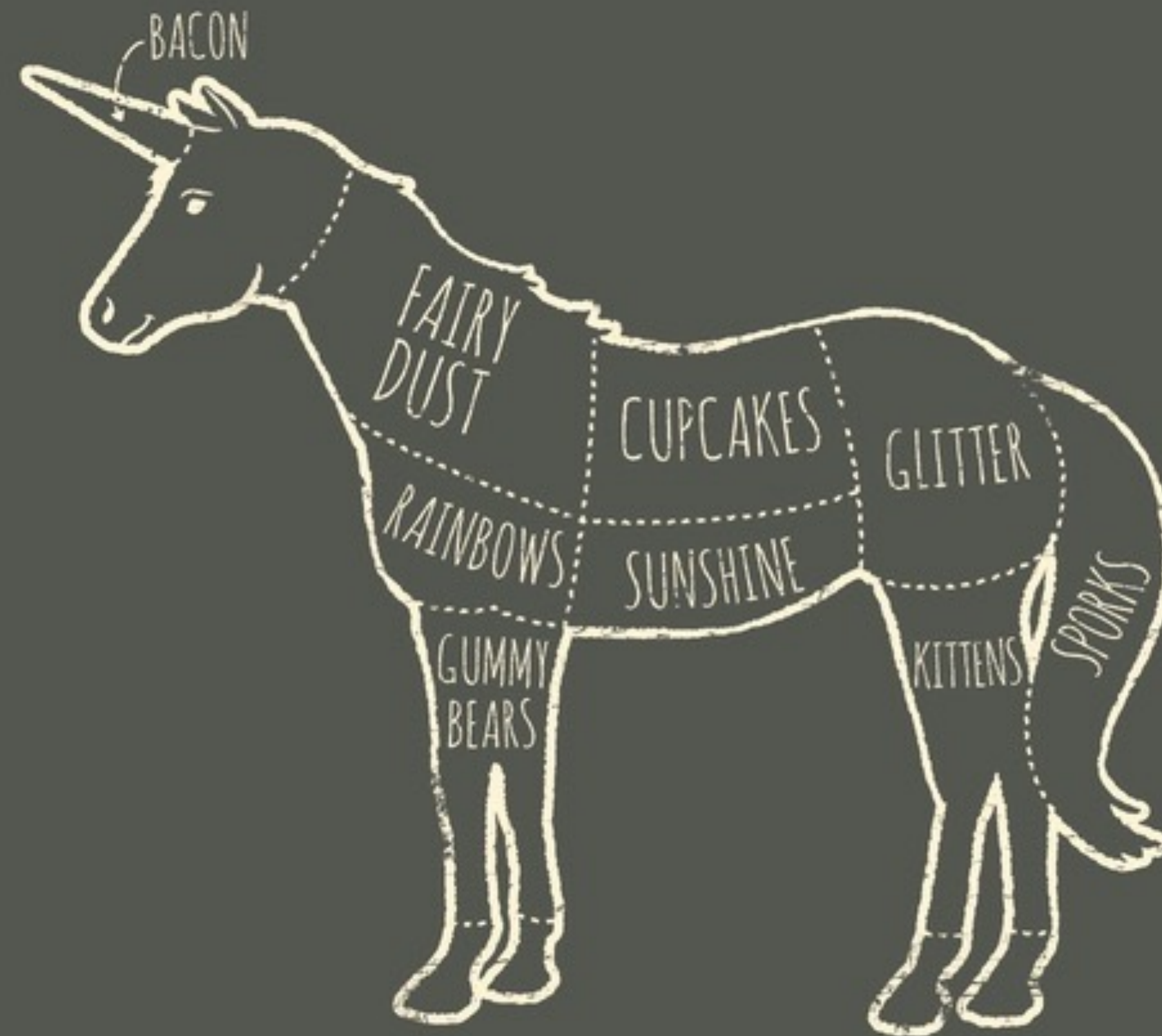
Aesthetic Takeaways



Choose when to sync music and visuals, and choose when not to sync. Both are equally important!

**The combination of disciplines is greater than
the sum of its parts**

The 3rd Dimension...





Lessons from the Ballet

Jaclyn Shumate
jaclynshumate@gmail.com
@shujaxaudio

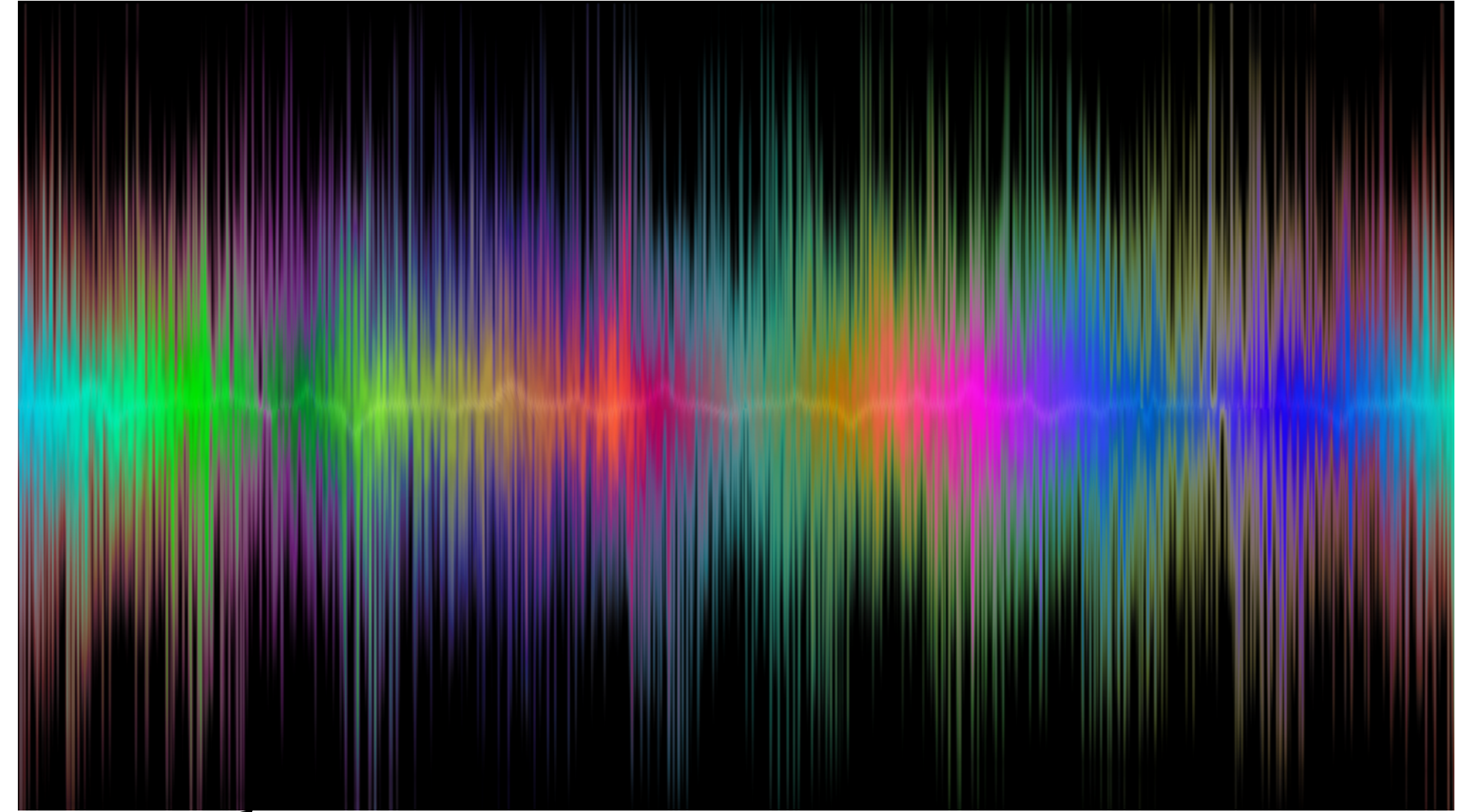


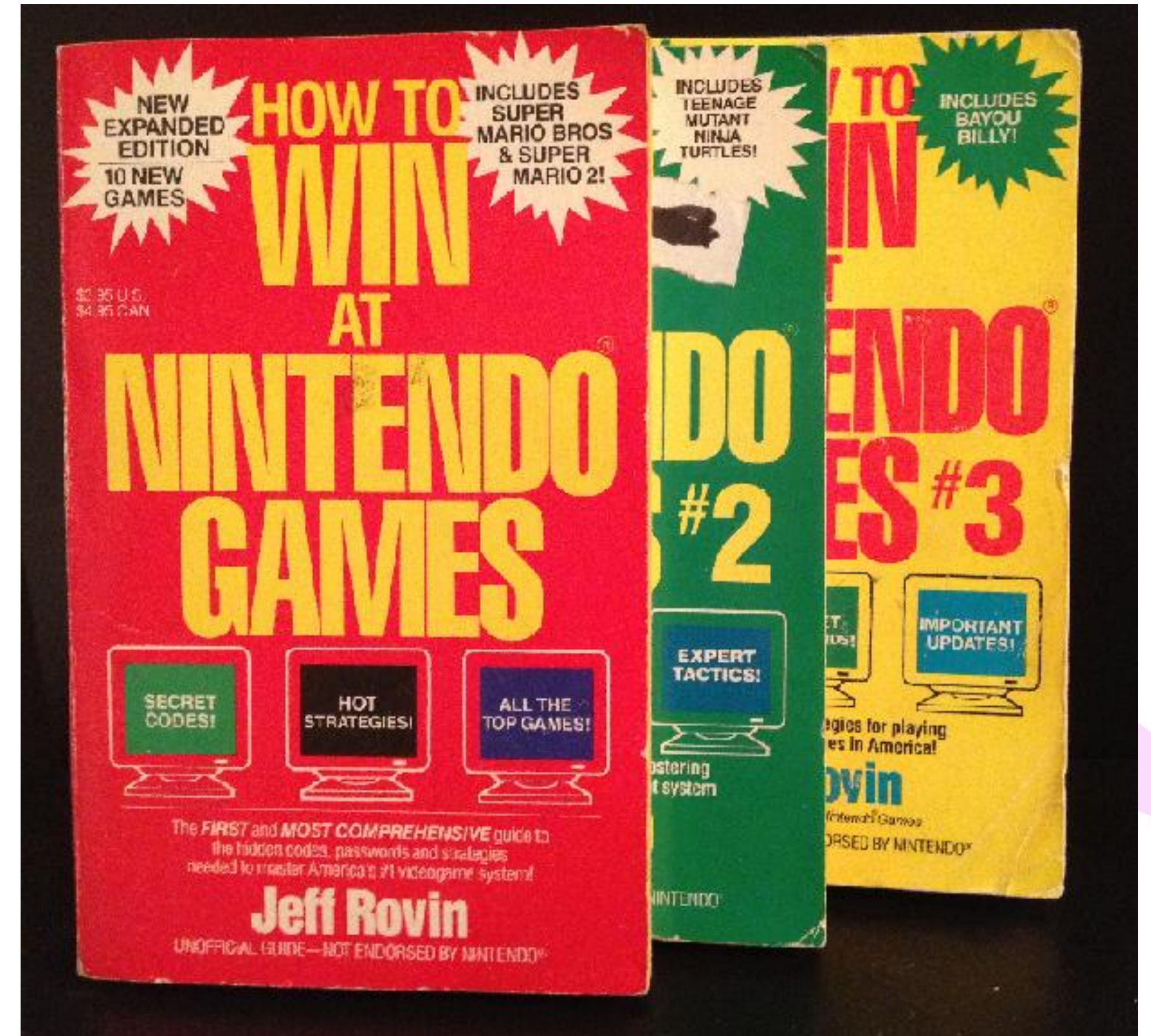
From Choreographics to Choreophony

Vincent Diamante – Audio Director, thatgamecompany













CHAPTER SEVEN

CONTRA

Type: Military search-and-destroy.

Objective: In 1957 a UFO plowed into the Amazon basin.

Today, terrified natives report that an evil entity has taken over the region. The creature—the Red Falcon—is using the conquest of Earth as the first step in a plan to take over the universe. Hoping to wipe the invader out, the Pentagon sends soldiers Lance (a.k.a. Scorpion) and Bill (a.k.a. Mad Dog) south . . . into the grotesque, alien jaws of danger.

Layout: The heroes battle their way through the space monster's 8 lines of defense: a Jungle, Base 1, a Waterfall, Base 2, the Snow Field, the Energy Zone, the Hangar Zone, and, ultimately, the Alien's Lair.

Scroll: The screen moves from side to side in all but the Bases. Here, the view is from over the soldiers' shoulders as they muscle through.

Hero's Powers: Each soldier begins with a rifle, jumping and running ability, and 3 lives; he earns a new life each time he successfully negotiates a defense zone. Soldiers can shoot Flying Capsules, Pill Box Sensors, or, in some cases, Red Guards, all of which release Falcons. These Falcons do not disappear until the hero has moved ahead and the screen has scrolled past them. (Even if you lose a life, the birds remain perched where they are.) Each Falcon is labeled and, when snatched, bestows either big-bullet Machine Gun power (M), Laser power (L), Fire Ball power (F), Rapid-Fire ability (R), the fan-of-death Spread Gun ability

> thrust punch-sacrifice toe kick		P+K,K
M / SK	23	- / D / D
sacrifice 1 DP, recovers on ground	24	
> thrust punch-sacrifice toe kick-handstand		P+K,K,P+K+G
- / -	-	-10 / -4 / -
sacrifice 1 DP, recovers on ground		
> thrust punch-sacrifice toe kick-handstand (delay)		P+K,K,P+K+G
- / -	-	-34 / -28 / -
sacrifice 1 DP, recovers on ground		
> double-fisted strike		f+P+K
M / -	25	-9 / D / D
drink +3 DP, evade to opponent's front	32	
> drunken crash		f,f+P+K
M / -	28	- / D / D
requires 8 DP, sacrifice 1 DP, sober -1 DP, high guard stagger	19	
> lunging elbow		df+P+K
M / EL	25~38	-6 / +1 / +5
charge	23	

Apefuchi Kamui Rymuse

| Performs three quick Kamui Ryuse and

| finishes by sending out a "shadow

\ | / O- -O | \ + BC

| Falcon, allowing for four consecutive

O O O O O

** | (if close to opponent).



(during Shikuru ni Nori)

214632 BC

Flicks cape 5 times

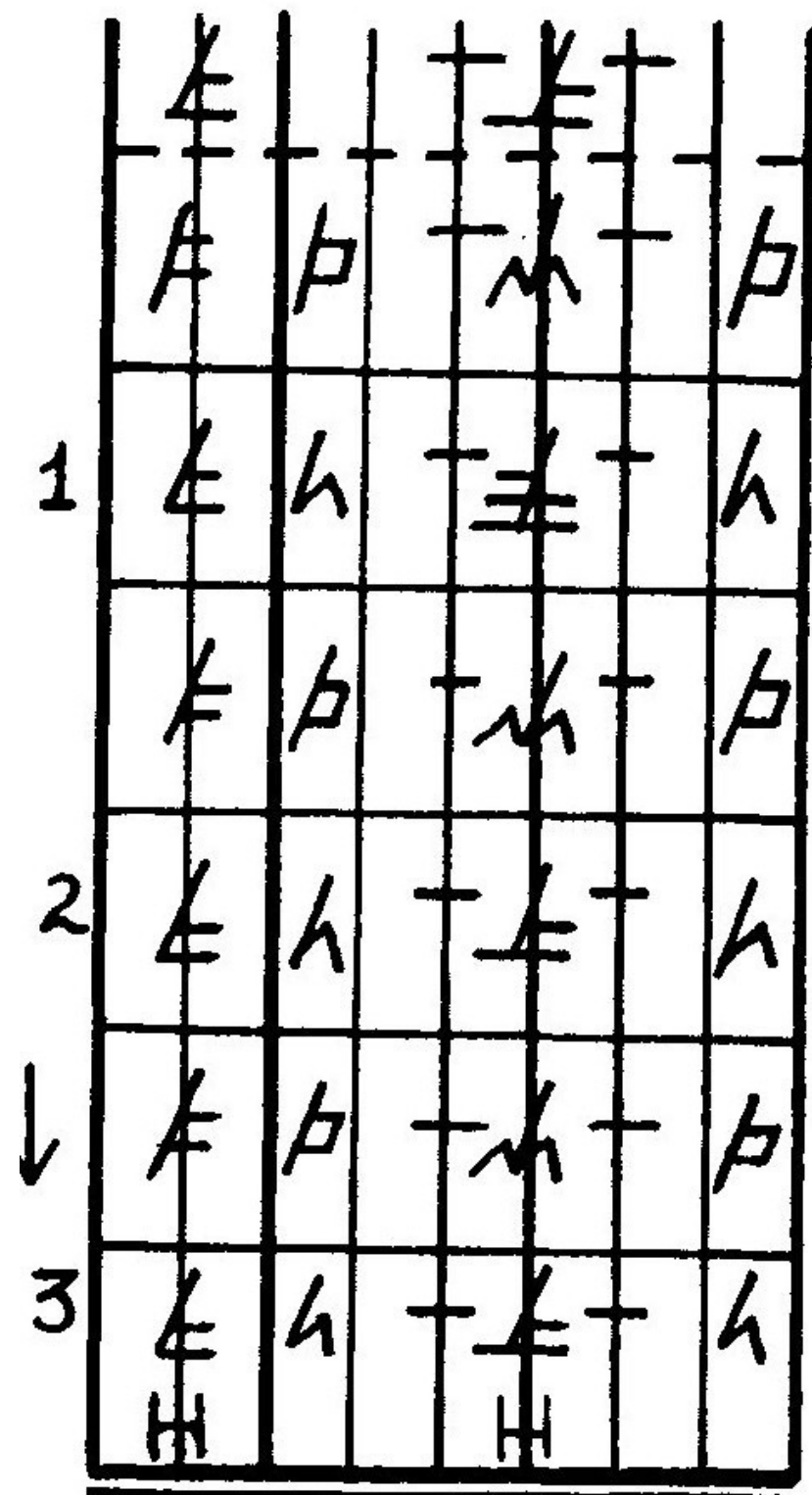
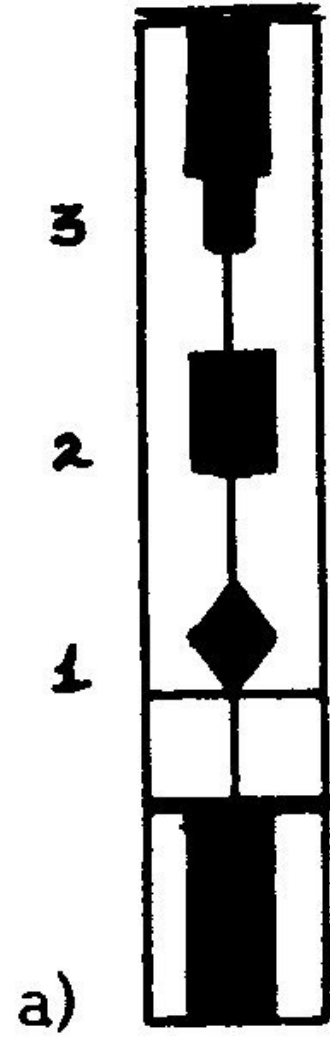


Морна №5 *Второй шаг из 148-го шага.*

Handwritten musical score for "Морна №5" (Morna No. 5) by Scriabin. The score is written on ten staves. The first staff has the title and a handwritten note "Второй шаг из 148-го шага." (Second step from the 148th step). The second staff has a large "39" written in the middle. The score includes various musical notations such as notes, rests, and dynamic markings like "p" and "f".

Allegretto

Handwritten musical score for "Allegretto". The score is written on ten staves. The first staff has the tempo marking "Allegretto" and a "2" in a box. The score includes various musical notations such as notes, rests, and dynamic markings like "f" and "p". There is a "3" in a box on the fourth staff.



Eshkol - Jumping

Sequence; 1968

		u	↑	↓ II	↑	↓ I	↑	↓ I	↑
R. leg	1		↓ M	↑ M	↓ M	↑ M	↓ M	↑ M	↓ M
	f		I	≡	II	≡	I	≡	I
		u	↑	↓ II	↑	↓ I	↑	↓ I	↑
L. leg	1		↓ M	↑ M	↓ M	↑ M	↓ M	↑ M	↓ M
	f		I	≡	II	≡	I	≡	I
		Weight		(=)	•	(=)	•	(⁴ ≡)	•
Ex. 145	h)	Front							

Ex. 145 h)

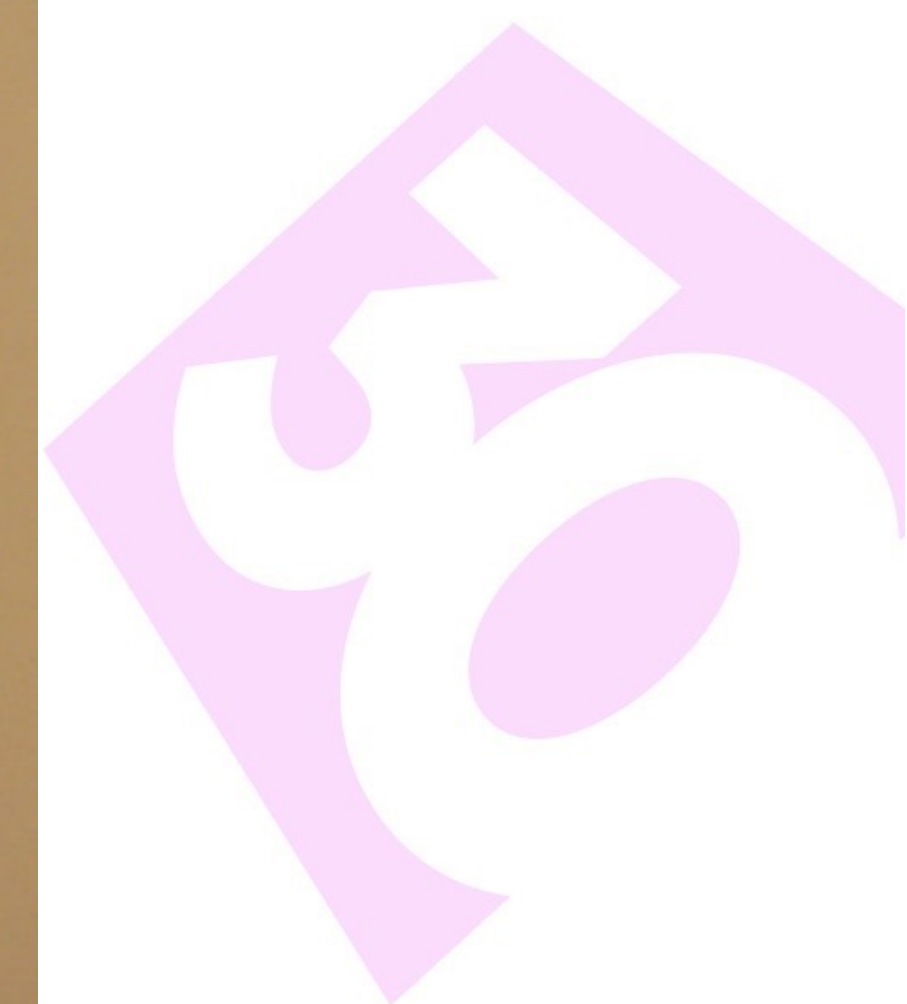
Eshkol - Jumping Sequence; 1987

	ε	1	ε	2	ε	3	ε
legs	[] (↓)	[6-2] (=)	↓ R (=)	↓ [4] (=)	↓		

Ex. 145 i)







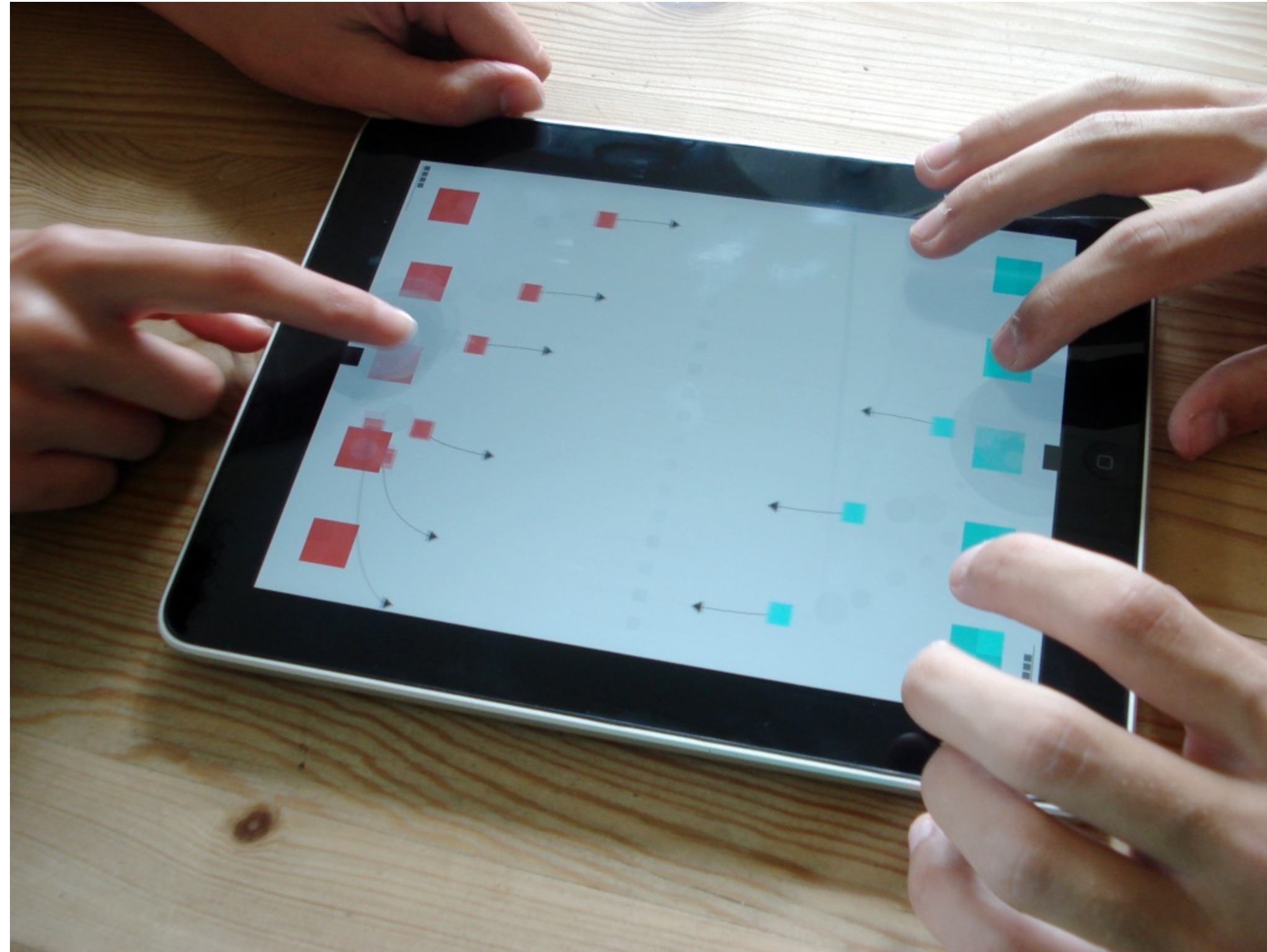


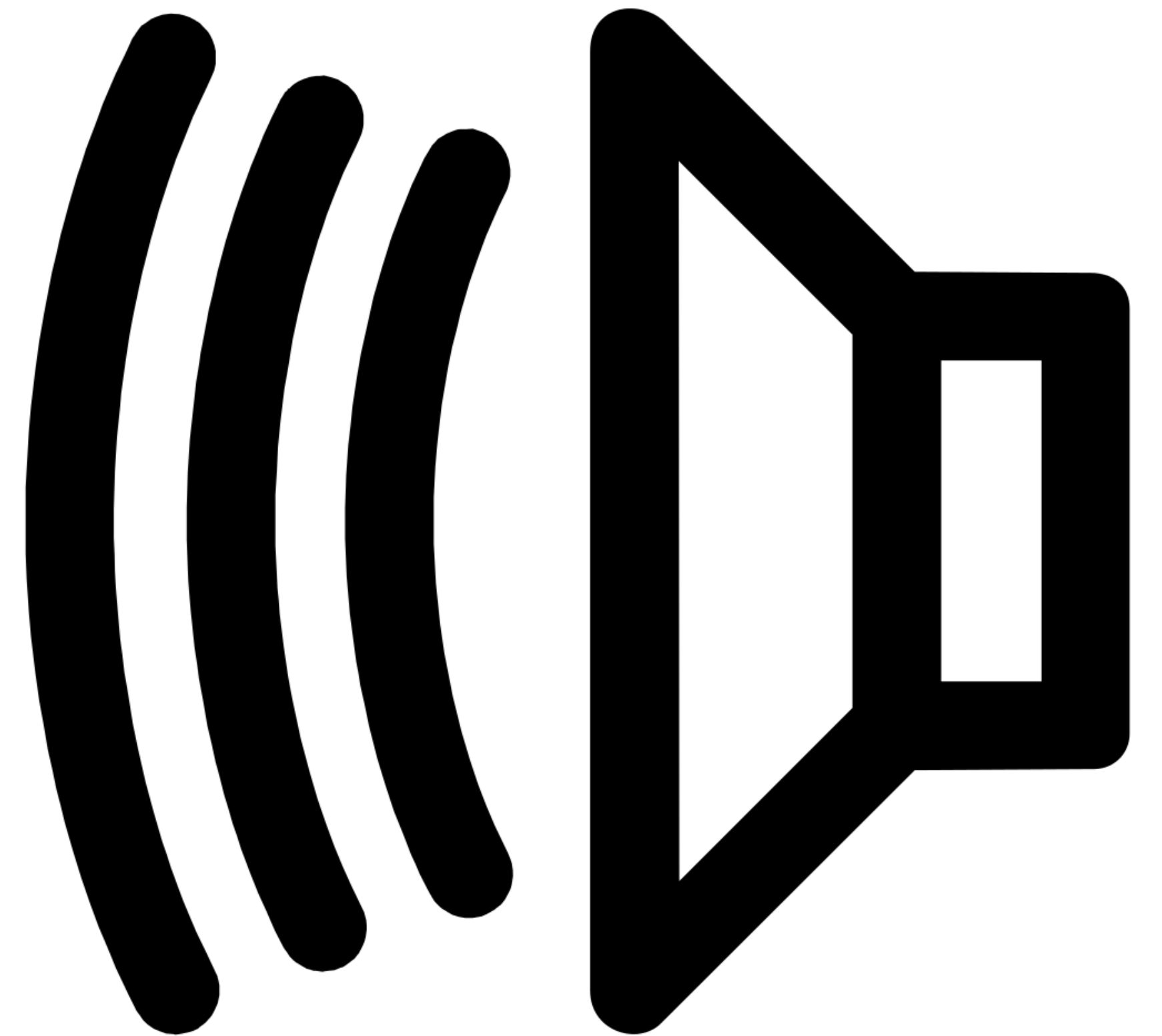














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Outside the Studio Walls:

MicroTalk Exploration of
Non-audio Ideas & Experiences

Thank you!

